

WEST BENGAL CHEMICAL INDUSTRIES LIMITED 145/1, Jessore Road, Lake Town, Kolkata – 700 089, India. Phone: +9133 4025 1700 Fax: +9133 2574 7410 Email: <u>webcil@wbcil.com</u> Website: <u>www.wbcil.com</u>

# Section 1 - Chemical Product and Company Identification

1.1 MSDS Name: Ammonium Propionate

1.2 Product Code: AMPNL85

1.3 Relevant uses and uses advised against (if any):

Industrial Manufacturing.

#### 1.4 Company Identification:

WEST BENGAL CHEMICAL INDUSTRIES LIMITED

145/1, Jessore Road, Lake Town,

Kolkata – 700 089, India.

Phone: +91 33 4025 1700 Fax: +91 33 2574 7410

Website: www.wbcil.com Email: webcil@wbcil.com

Emergency Telephone No.: +91 9874356081

# Section 2 - Hazards Identification

2.1 Classification of the substance or mixture:

HCS 2012 (29 CFR 1910.1200)

### 2.2 Label elements:

HCS 2012 (29 CFR 1910.1200)

2.2.1 Hazard Classification

Skin Corr. 1B (47.9%)

Skin Irrit. 2 (42.6%

Eye Dam. 1 (47.9%)

Eye Irrit. 2 (42.6%)

STOT SE 3 (30.9%)

#### 2.3 Signal Word:

Danger

#### 2.4 Hazard Statement:

H314 Causes severe skin burns and eye damage.

H315 (47.06%): Causes skin irritation

H318 Causes serious eye damage.

H319 (47.06%): Causes serious eye irritation

H335 (67.06%): May cause respiratory irritation

#### 2.5 Precautionary Statement:

AR WBCIL RAND



# Section 2 - Hazards Identification

### Prevention

- P260: Do not breathe dust, fumes, gas, mist, vapors, or spray.
- P261: Avoid inhalation of dust, fumes, gas, mist, vapors, or spray.
- P264: Wash hands thoroughly after handling.
- P264+P265: Wash hands thoroughly after handling. Avoid contact with eyes.
- P271: Use only in outdoor or well-ventilated areas.
- P280: Wear appropriate protective gloves, protective clothing, eye protection, and face protection.

#### Response

- P301+P330+P331: If swallowed, rinse mouth. Do not induce vomiting.
- P302+P352: If on skin, wash thoroughly with plenty of water.
- P302+P361+P354: If on skin, immediately remove all contaminated clothing and rinse affected area with water for several minutes.
- P304+P340: If inhaled, remove person to fresh air and keep at rest in a comfortable position for breathing.
- P305+P351+P338: If in eyes, rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P305+P354+P338: If in eyes, immediately rinse with water for several minutes. Remove contact lenses if possible. Continue rinsing.
- P332+P317: If skin irritation occurs, seek medical attention.
- P337+P317: If eye irritation persists, seek medical attention.
- P316: Seek emergency medical attention immediately.
- P317: Obtain medical help if needed.
- P319: If feeling unwell, seek medical help.
- P310: Immediately call a Poison Center or doctor/physician.
- P363: Wash contaminated clothing before reuse.

### Storage

• P403+P233: Store in a well-ventilated place. Keep container tightly closed.





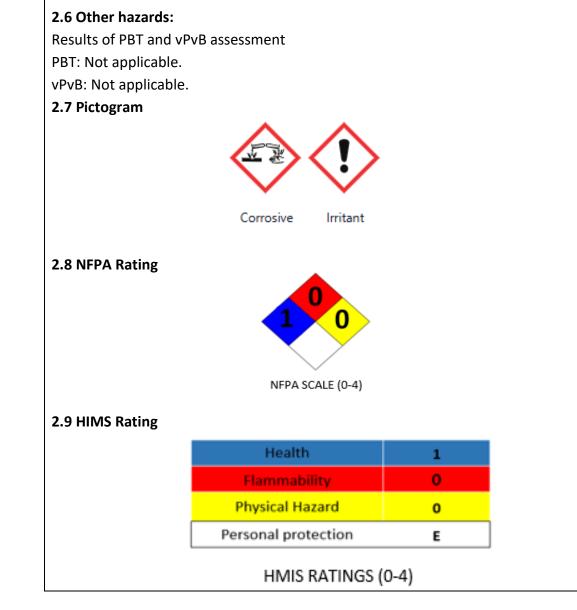
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# Section 2 - Hazards Identification

• P405: Store locked up.

#### Disposal

• P501: Dispose of contents and container in accordance with local, regional, national, and international regulations.







# Section 3- Composition/Information on Ingredients

- 3.1 Ingredient Name: Ammonium Propionate
- 3.2 Synonym: Propanoic acid, ammonium salt, Propanoic acid, ammonium salt (1:1)

**3.3 CAS Number:** 17496-08-1

**3.4 EC Number:** 241-503-7

- 3.5 Molecular Wt.: 91.11 g/mol
- 3.6 Molecular Formula: C<sub>3</sub>H<sub>9</sub>NO<sub>2</sub>

# Section 4 – First Aid Measures

#### 4.1 Description of first aid measures:

4.1.1 General advice

Immediately remove contaminated clothing.

4.1.2 If inhaled

Keep patient calm, remove to fresh air, seek medical attention.

4.1.3 On skin contact

Wash off thoroughly with ample water.

4.1.4 On contact with eyes

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

4.1.5 On ingestion

Rinse mouth immediately and then drink plenty of water, seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed:

Hints for Physician: Symptoms

See Section 11 for additional information on health hazards

4.3 Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

# 4.4 Note to physician:

Symptoms: Overexposure may cause: asthma, coughing

Treatment: Symptomatic treatment (decontamination, vital functions).





# Section 5 – Fire Fighting Measures

### 5.1 Extinguishing Media:

5.1.1 Suitable extinguishing media

water spray, carbon dioxide, dry powder, foam.

## 5.2 Flash Point (TCC):

Greater than 200 F

### 5.3 Flammability of the Product:

Non-flammable.

### 5.4 Flammability Limits:

Not Established

### 5.5 Specific hazards:

Evolution of toxic fumes/fog.

### 5.6 Products of Combustion:

Fumes, Carbon oxides (CO CO2) and Nitrogen Oxides (NOx) and Ammonia.

## 5.7 Special protective equipment:

Wear self-contained breathing apparatus and chemical protective clothing.

### 5.8 Fire-Fighting/Further Advice:

Do not inhale explosion and combustion gases. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely.

# Section 6 – Accidental Release Measures

6.1 Personal Precautions, protective equipment and emergency procedures:

Wear breathing apparatus if exposed to vapours/dusts/aerosols. Provide adequate ventilation. **6.2 Environmental Precautions:** 

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Ensure all waste

water is collected and treated via a waste water treatment plant.

# 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralizing agent. Dispose contaminated material as waste according to section 13. Ensure adequate ventilation.





# **Section 6 - Accidental Release Measures**

6.3.1 Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal

container. Finish cleaning by spreading water on the contaminated surface and dispose of

according to local and regional authority requirements.

6.3.2 Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

# Section 7 – Handling and Storage

## 7.1 Conditions for safe storage:

Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Avoid prolonged or repeated exposure. Remove contaminated clothing and wash before reuse. Wash thoroughly after handling.

# 7.2 Conditions for safe storage, including any incompatibilities:

7.2.1 Storage temperature

store at 2°C - 8°C

7.2.2 Storage condition

close container well, keep dry

7.2.3 Storage Requirements

Keep container tightly closed when not in use, since hygroscopic. Keep away from incompatible substances.

7.2.4 Suitable materials for containers

Carbon steel (Iron), Stainless steel 1.4401, Stainless steel 1.4301 (V2), Polyester resin, glass reinforced (Palatal A410), High density polyethylene (HDPE), glass, Low density polyethylene (LDPE)

7.2.5 Unsuitable materials for containers

Galvanized carbon steel (Zinc), Paper/Fiberboard

# 7.3 Further information on storage conditions:

Keep container tightly closed and dry; store in a cool place.





# Section 8- Exposure Controls / Personal Protection

## 8.1 Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

# 8.2 Exposure controls:

Industrial Hygiene Mechanical exhaust required. Safety shower and eye shower.

# 8.3 Control parameters:

Ingredients with limit values that require monitoring at the workplace:

Organization	Short-term Value	Long-term Value	Additional Notes
WEL (Great Britain)	104 mg/m³, 40 ppm	52 mg/m <sup>3</sup> , 20 ppm	Sk *particulate **vapour
IOELV (EU)	104 mg/m <sup>3</sup> , 40 ppm	52 mg/m <sup>3</sup> , 20 ppm	Skin
MAK (Switzerland)	52 mg/m <sup>3</sup> , 20 ppm	26 mg/m <sup>3</sup> , 10 ppm	H SSc

## 8.4 Personal Protective Equipment:

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

8.4.1 Respiratory protection:

Suitable respiratory protection for higher concentrations or long-term effect: Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e.g. EN 14387 Type A) Wear respiratory

protection if ventilation is inadequate.

8.4.2 Hand protection:

Suitable chemical resistant safety gloves (EN ISO 374-1) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to

EN ISO 374-1): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc.

Supplementary note: The specifications are based on tests, literature data and information of glove

manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing. Manufacturer's directions for use should be observed because of great diversity of types.





# Section 8- Exposure Controls / Personal Protection

8.4.3 Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

8.4.4 Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting

boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case

of dust).

# 8.5 General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended. Avoid contact with skin and eyes. Do not inhale

gases/vapours/aerosols.

Handle in accordance with good industrial hygiene and safety practice. No eating, drinking, smoking

or tobacco use at the place of work. Hands and/or face should be washed before breaks and at the

end of the shift. Store work clothing separately.

# 8.6 Personal protection in case of a large spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

# 8.7 Exposure limits:

Components with occupational exposure limits

TWA value 474 mg/m<sup>3</sup>; 150 ppm (AU NOEL), Total vapour and particulates

TWA value 10 mg/m<sup>3</sup> (AU NOEL), Particulate

TWA value 474 mg/m<sup>3</sup>; 150 ppm (OEL (AU)), Total vapour and particulates

TWA value 10 mg/m<sup>3</sup> (OEL (AU)), Particulate

propionic acid, 79-09-4;

TWA value 10 ppm (ACGIHTLV)

TWA value 30 mg/m<sup>3</sup>; 10 ppm (AU NOEL)

TWA value 30 mg/m<sup>3</sup> ; 10 ppm (OEL (AU))





Section 9 – Physical and Chemical Properties		
9.1 Information on basic physical and chemical properties:		
· General Information		
· Appearance:	Liquid	
Colour:	Colourless to light yellow liquid	
· Odour:	Characteristic	
· Odour threshold:	Not determined.	
· pH-value:	5.50 – 7.50	
Melting point/freezing point:	38.2 °C	
Initial boiling point and boiling range:	142°C	
· Flash point:	≥ 104 °C	
· Flammability (solid, gas):	Not applicable.	
· Ignition temperature:	425 °C	
· Decomposition temperature:	Not determined.	
· Auto-ignition temperature:	Product is not self-igniting.	
· Explosive properties:	Product does not present an explosion hazard.	
· Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
· Vapour pressure:	2.81 mm Hg at 25 °C	
· Density at 20 °C:	1 g/cm <sup>3</sup>	
· Relative density:	around 1.65	
Bulk density:	9.24	
· Vapour density:	Not determined.	
· Evaporation rate:	Not determined.	
· Solubility:	Water solubilioty 5.41 other: mol/L at 25°C.	
Segregation coefficient (n-octanol/water): Not determined.		
· Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
9.2 Other information:		
No further relevant information available.		





Section 10 – Stability and Reactivity		
10.1 Stability:		
The product is stable.		
10.2 Instability Temperature:		
Not available.		
10.3 Conditions of Instability:		
Not available.		
10.4 Conditions to Avoid (SDS):		
Incompatible materials, moisture		
10.5 Incompatibility with various substances:		
strong oxidizers.		
10.6 Hazardous decomposition products:		
nitrogen oxides (NOx), carbon dioxide (CO2), carbon monoxide		
10.7 Corrosivity:		
Non-corrosive in presence of glass.		
10.8 Special Remarks on Reactivity:		
Not available.		
10.9 Special Remarks on Corrosivity:		
Not available.		
10.10 Polymerization:		
Will not occur.		

# Section 11 - Toxicological Information

### **11.1 Acute toxicity:**

Of low toxicity after single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation. Inhalation-risk test (IRT): No mortality within 8 hours as shown in animal studies. The inhalation of a highly saturated vapor-air mixture represents no acute hazard. Information on: propionic acid LD50: 5 000 mg/kg (female rat, oral) LC50 rat (by inhalation): > 19.7 mg/l 1 h LC0 rat (by inhalation): 24.4 mg/l 8 h (IRT) LD50 guinea pig (dermal): 4,960 - 9,930 mg/kg **11.2 Irritation:** 





# **Section 11 - Toxicological Information**

Assessment of irritating effects:

Risk of serious damage to eyes. Irritating to skin.

Primary skin irritation rabbit: Irritant. (OECD Guideline 404)

Primary irritations of the mucous membrane cattle: Risk of serious damage to eyes. (BCOP)

## **11.3** Assessment other acute effects:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

### 11.4 Sensitization:

Information on: propionic acid

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

#### 11.5 Repeated dose toxicity:

Assessment of repeated dose toxicity:

After repeated exposure the prominent effect is local irritation.

### **11.6 Genetic toxicity:**

Information on: propionic acid

Assessment of mutagenicity: Results from a number of mutagenicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

### 11.7 Carcinogenicity:

Information on: propionic acid

Assessment of carcinogenicity: In long-term animal studies in which the substance was given in high concentrations by feed, a carcinogenic effect was not observed.

### **11.8 Reproductive toxicity:**

Information on: propionic acid

Assessment of reproduction toxicity:

The results of animal studies gave no indication of a fertility impairing effect.

#### **11.9 Developmental toxicity:**

Information on: propionic acid





# Section 11 - Toxicological Information

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

## **11.10 Teratogenic Effects:**

Not available.

## 11.11 Mutagenic Effects:

Not available.

Section 12 – Ecological Information		
12.1 Ecotoxicity:		
Not available.		
12.2 BOD5 and COD:		
Not available.		
12.3 Products of Biodegradation:		
Possibly hazardous short-term degradation products are not likely.		
However, long term degradation products may arise.		
12.4 Toxicity of the Products of Biodegradation:		
The products of degradation are more toxic.		
for Dalphina magna: ECO: 100 mg/L in 48 h		
EC100 >100 mg/L in 48 h		
EC50: >100 mg/L in 48 h		
NOEC 100 mg/L in 48 h		
for freshwater algae: EC10: >= 48.3 - <= 59.5 mg/L in 72 h		
EC20 >100 mg/L in 72 h		
EC50: >100 mg/L in 72 h		
NOEC 9.8 mg/L in 72 h		
LOEC 31.3 mg/L in 72 h.		
12.5 Special Remarks on the Products of Biodegradation:		
Not available.		

# Section 13 – Disposal Considerations





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It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

# **Section 14 – Transport Information**

<ul> <li>14.1 UN number:</li> <li>Road Transport (ADR/GGVS): 1759</li> <li>Air Transport (IATA): 1759</li> <li>14.2 UN proper shipping name:</li> <li>Road Transport (ADR/GGVS): CORROSIVE SOLID, N.O.S. (Ammonium propionate)</li> </ul>		
Air Transport (IATA): 1759 14.2 UN proper shipping name:		
14.2 UN proper shipping name:		
Road Transport (ADR/GGVS): CORROSIVE SOLID, N.O.S. (Ammonium propionate)		
Air Transport(IATA): CORROSIVE SOLID, N.O.S. (Ammonium propionate)		
14.3 Transport hazard class(es):		
Road Transport (ADR/GGVS): 8		
Air Transport (IATA): 8		
14.4 Packing group:		
Road Transport (ADR/GGVS): III		
Air Transport (IATA)L: III		
14.5 Environmental hazard class (es):		
Road Transport (ADR/GGVS): Not Dangerous Goods		
Air Transport (IATA): Not Dangerous Goods		
14.6 Special precautions for user:		
Road Transport (ADR/GGVS): Passage through tunnels of category E is forbidden.		
Air Transport (IATA): Not applicable		
14.7 Transport in bulk according to Annex 11 of MARPOL and the IBC code:		
Road Transport (ADR/GGVS): Not applicable		
Air Transport (IATA): Not applicable		
DOT (Pictograms)		
AS PER IATA REGULATION SAFE FOR CARRAGE,		
NON-HAZARDOUS AND NON-RESTRICTED.		
NO SPECIAL LABELLING OR TRANSPORT MEASURE		
HAVE BEEN IDENTIFIED.		
THIS IS NOT REGULATED AS PER IATA REGULATION		





Section 15 - Regulatory Information				
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:				
Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) Article 59 - Candidate List of Substances of Very High Concern (SVHC)	
Ammonium Propionate				
Regulatory List				
EINECS, IECSC, TCSI, TSCA, NZIOC, PICCS, AICS				
15.2 Chemical safety assessment:				
No chemical safety assessment has been carried out.				

Section 16 - O	ther Information
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<b>Disclaimer:</b> This material safety data sheet is provided as a		provided as an information resource only.
	WEST BENGAL CHEMICAL INDUST	RIES LIMITED believes the information
	contained herein is accurate and	compiled from reliable sources. It is the
	responsibility of the user to verify	its validity. The buyer assumes all
	responsibility of using and handlir	ng the product in accordance with federal,
	state, and local regulations.	
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