



WEST BENGAL CHEMICAL INDUSTRIES LIMITED

145/1, Jessore Road, Lake Town,

Kolkata – 700 089, India.

Phone: +9133 4025 1700 Fax: +9133 2574 7410

Email: wbcil@wbcil.com

Website: www.wbcil.com

Section 1 - Chemical Product and Company Identification

MSDS Name: Potassium Formate

Product Code: POFNL45

Company Identification:

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145/1, Jessore Road, Lake Town,

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Section 2 - Composition / Information on Ingredients

Substances

#	Ingredient Name	CAS Number	EC Number
1)	Potassium Formate	590-29-4	209-677-9

Section 3 - Hazards Identification

Classification of the substance or mixture

Classification acc. to GHS

This substance does not meet the criteria for classification.

Label elements

Labelling

not required

Other hazards

Results of PBT and vPvB assessment

According to the results of its assessment,

this substance is not a PBT or a vPvB.

H315 (12.43%): Causes skin irritation

(Warning- Skin corrosion/irritation).

H319 (99.8%): Causes serious eye irritation

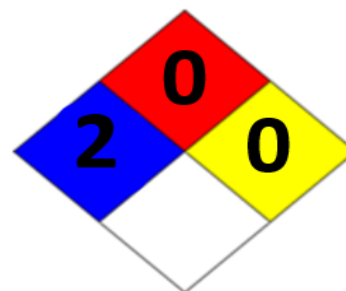
(Warning- Serious eye damage/eye irritation).

H335 (12.43%): May cause respiratory irritation

(Warning- Specific target organ toxicity, single exposure; Respiratory tract irritation).

Skin Corrosion/Irritation:

Category 2 - Serious Eye Damage/Eye Irritation.



NFPA SCALE (0-4)





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Category 2 - Specific target organ toxicity (single exposure).

Category 3 - Target Organs - Respiratory system.

Section 4 - First Aid Measures

Description of first aid measures

General notes

No special measures are necessary.

Following inhalation

Provide fresh air.

Following skin contact

Rinse skin with water/shower.

Following eye contact

Rinse cautiously with water for several minutes.

Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

Indication of any immediate medical attention and special treatment needed

none

Section 5 - Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings

water, foam, alcohol resistant foam, dry extinguishing powder, ABC-powder

Unsuitable extinguishing media

water jet

Special hazards arising from the substance or mixture

Non-combustible.

Hazardous combustion products

In case of fire may be liberated: Carbon monoxide (CO), Carbon dioxide (CO₂)

Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.





Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

No special measures are necessary.

6.2 Environmental precautions

Keep away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains. Take up mechanically.

Advice on how to clean up a spill

Take up mechanically.

Other information relating to spills and releases

Place in appropriate containers for disposal.

Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8.

Incompatible materials: see section 10. Disposal considerations: see section 13.

Section 7 - Handling and Storage

Precautions for safe handling

No special measures are necessary.

Advice on general occupational hygiene

Keep away from food, drink and animal feeding stuffs.

Conditions for safe storage, including any incompatibilities

Store in a dry place. Hygroscopic solid.

Incompatible substances or mixtures

Observe hints for combined storage.

Protect against external exposure, such as

humidity

Consideration of other advice:

Specific designs for storage rooms or vessels

Recommended storage temperature: 15 – 25 °C

Specific end use(s)

No information available

Storage Class (TRGS 510):

Non Combustible Solids





Section 8 - Exposure Controls / Personal Protection

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.
Personal Protection	:	Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves
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.
Exposure limits	:	Not available.

Section 9 - Physical and Chemical Properties

Appearance Form	:	Free flowing powder with occasional friable lumps
Color	:	White
Odour	:	Pungent
Solubility	:	In water >1000 g/l at 20 °C (ECHA)
pH of 2% aqueous suspension	:	4.0-7.0
Melting point/freezing point	:	167 °C (ECHA)
Auto-ignition Temperature	:	>400 °C at 1,013 hPa (ECHA)
Decomposition Temperature	:	167 °C (ECHA)
Surface Tension	:	72 mN/m at 20 °C ECHA
Dissociation Constant	:	3.79 ECHA
Specific Gravity	:	1.9100
Initial Boiling Point and Boiling Range	:	>167 °C
Partition coefficient	:	n-octanol/water log Pow -1.999 at 20 °C ECHA
Sublimation Temperature	:	No data available
Density	:	1.91 at 20 °C ECHA
Vapour pressure	:	No data available
Vapour density	:	No data available
Refractive Index	:	No data available
Water solubility	:	Not available
Decomposition temperature	:	No data available
Viscosity	:	No data available





Other safety information

No data available

Section 10 - Stability and Reactivity

Reactivity

This material is not reactive under normal ambient conditions.

Chemical stability

Moisture-sensitive. Hygroscopic solid.

Possibility of hazardous reactions

No known hazardous reactions.

Conditions to avoid

Keep away from heat. Decomposition takes place from temperatures above: 167 °C. Protect from moisture.

Incompatible materials

There is no additional information.

Hazardous decomposition products

Hazardous combustion products: see section 5.

Section 11 - Toxicological Information

Information on toxicological effects

Classification acc. to GHS

This substance does not meet the criteria for classification.

Acute toxicity

Shall not be classified as acutely toxic.

Toxicity to Animals:

LD50: Oral, Mouse: LD50 = 5500 mg/kg;<BR.

LC50: Not available.

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity





Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics

• **If swallowed**

Data are not available.

• **If in eyes**

Data are not available.

• **If inhaled**

Data are not available.

• **If on skin**

Data are not available.

• **Other information**

Health effects are not known. This information is based upon the present state of our knowledge.

Endocrine disrupting properties

Not listed.

Information on other hazards

There is no additional information.

Human Health Values:

Relevant DNELs and other threshold levels:

Threshold Level	Protection goal (Route of Exposure)	Used in	Exposure Time
435mg/m ³	Human, Inhalatory	Worker (Industry)	Acute – Systemic Effects
6175 mg/kg bw/day	Human, Dermal	Worker (Industry)	Acute – Systemic Effects
43.55 mg/m ³	Human, Inhalatory	Worker (Industry)	Acute – Systemic Effects
12.35 mg/kg/bw/day	Human, Dermal	Worker (Industry)	Acute – Systemic Effects





Section 12 - Ecological Information

Toxicity

Shall not be classified as hazardous to the aquatic environment.

Biodegradation

The substance is readily biodegradable.

Process of degradability

Theoretical Oxygen Demand: 0 mg/mg

Theoretical Carbon Dioxide: 0,5232 mg/mg

Bioaccumulative potential

Does not significantly accumulate in organisms.

Results of PBT and vPvB assessment

Data are not available.

Endocrine disrupting properties

Not listed.

Other adverse effects

Data are not available.

Toxicity to Fish

Semi-static test LC50 - *Oncorhynchus mykiss* (rainbow trout); 3,500 mg/l (96 h) (Potassium formate) (OECD Test Guideline 203).

Toxicity to algae

Static test EC50 - *Skeletonema costatum* (marine diatom); 3,700 mg/l (72 h) (Potassium formate) (ISO 10253).

Biodegradability

Aerobic - Exposure time 28d (Potassium formate).

Result: 92 % - Readily biodegradable (OECD Test Guideline 301D).

Section 13 - Disposal Considerations

Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.

Sewage disposal-relevant information

Do not empty into drains.

Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Waste catalogue ordinance (Germany).

Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.





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Section 14 - Transport Information

D O T Classification	Not a DOT controlled material
Identification	Not applicable.
Special Provision for Transport	Not applicable

Section 15 - Regulatory Information

Federal and State Regulations: Not available.

Other Regulations: Not available

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC): Not available

HMIS (U.S.A.): Not available

National Fire Protection Association (U.S.A.): Not available

Protective Equipment: Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.

Section 16 - Other Information

Disclaimer: This material safety data sheet is provided as an information resource only. WEST BENGAL CHEMICAL INDUSTRIES 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 handling the product in accordance with federal, state, and local regulations.

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