



SAFETY DATA SHEET

1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY

Catalogue No. : K 20171
Product Name : KOVACS INDOLE REAGENT

Manufacturer / supplier identification
Company : NICE Chemicals (P) Ltd. , Cochin , India
Tel - 0484 2800212 , 2802755

Contact For Information : Tel . No. – 0484 2802536 Fax : 0484 2802483
Emergency Telephone No. : 0484 2801583 Tele fax No. : 0484 2802483

2. COMPOSITION / INFORMATION ON INGREDIENTS

Synonyms : Indole reagent

Hazardous ingredients :

Hazard symbols	: Xn	R-phrases	: 10-20
CAS-No	: 71-36-3	Content	: >- 50%
EC Index No.	: 603---4-00-6	Flammable	Harmful by inhalation
Name according to EC Directive s : Hydrochloric acid			
Hazardous symbols	: C	R-phrases	: 34-37
EC-Index-No.:	017-002-01-X	Causes burns irritating to respiratory system.	
CAS- No.:	7647-01-0	Content	: >- 10-25 %

3. HAZARDS IDENTIFICATION

Flammable. Harmful by inhalation . Irritating to eyes , respiratory system and skin.

- 4. FIRST AID MEASURES** :After skin contact : Wash off with plenty of water.
After eye contact : Rinse out with plenty of water with the eyelid held wide open. Summon doctor.
After inhalation : Fresh air.
After swallowing : Drink plenty of water . Caution if victim vomits.
Risk of aspiration ! Keep airways free. Summon doctor . Gastric lavage.
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5. FIRE – FIGHTING MEASURES: Suitable extinguishing media : Powder , foam.

Fire extinguisher : powder ,carbon dioxide, water.

Special risks : Combustible. Vapours heavier than air. Formation of hazardous combustion gases or vapours possible in the event of fire.

Formation of explosive mixtures possible with air. Keep away from sources of ignition. The following may develop in event of fire : hydrochloric acid.

Special protective equipment for fire fighting : Do not stay in dangerous zone without suitable chemical protection clothing and self- contained breathing apparatus.

Other information: Contain escaping vapours with water.

6. ACCIDENTAL RELEASE MEASURES : Person –related precautionary measures : Do not inhale vapours/ aerosols .
Ensure supply of fresh air in enclosed rooms.

Environmental –protection measures:

Do not allow to enter sewerage system.

Procedures for cleaning/ absorption : Take up with liquid- absorbent material (e.g. Chemizorb @). Forward for disposal .Clean up affected area.

7. HANDLING AND STORAGE: Handling : No further requirements.

Storage : Tightly closed . In a well- ventilated place. Keep away from sources of ignition and heat. Cool (+ 2° C to + 8°C).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment

Respiratory protection : required when vapours /aerosols are generated .

Eye protection : required

Hand protection : required



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Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Industrial hygiene : Change contaminated clothing. Application of skin-protective barrier cream recommended. Wash hands after working with substance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	:	Liquid
Colour	:	Yellow -green
Odour	:	Characteristic odour
pH value at g/l H ₂ O (20°C)	:	<1
Melting temperature	:	Not available
Boiling temperature	:	Not available
Ignition temperature	:	Not available
Flash point	:	36 ° C
Explosion limits lower	:	Not available
Upper	:	Not available
Relative vapour density	:	Not available
Density (20°C)	:	0.92 g/cm ³
Solubility in water(20°C)	:	Soluble

10. STABILITY AND REACTIVITY : Conditions to be avoided : Heating.

Substance to be avoided : Oxidizing agent, alkalis ; Aluminium, alkali metals, alkaline earth metals, metals : Formation of hydrogen.

Hazardous decomposition :products : In the event of fire : hydrochloric acid.

Further information : Inflammable ; has a corrosive effect ;

Incompatible with various metals , artificial and /or natural resins.

Explosible with air in a vapours/gaseous state when heated.



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11. TOXICOLOGICAL INFORMATION

Acute toxicity: Quantitative data on the toxicity of this product are not available.

Subacute to chronic toxicity : Applicable to partial component (s) :

An embryotoxic effect need not be feared when the threshold limit value is observed . The possibility of an embryo toxic effect has not yet been fully assessed.

Further toxicological information:

After skin contact : Irritant effect.

After eye contact : Irritant effect .

After swallowing : Risk of aspiration upon vomiting.

Further data : Further hazardous properties cannot be excluded.

The product should be handled with the care usual when dealing with chemicals.

12. ECOLOGICAL INFORMATION : Behavior in environmental compartments :

Risk of formation of explosive vapours above water surface.

Ecotoxic effects : Biological effects : Harmful effect on aquatic organisms. Caustic even in diluted form . Harmful effect due to pH shift.

Further ecologic data : Preparation contains : hydrochloric acid , butanol.

The following applies to Butanol in general . Harmful effect on aquatic organisms. Easily eliminable . Readily biodegradable (reduction DOC > 70%). When used properly , no impairments in the function of waste-water-treatment plants are to be expected.

Biological effects : Fish toxicity : *Leuciscus idus* LC₅₀ : 1520 mg/l ;

Carassius auratus LC₅₀ : 1900 mg/l/24 h. Maximum permissible toxical concentration : *Pseudomonas putida* 280 mg/l : *Scenedesmus quadricauda* 350 mg/l : *Entosiphon sulcatum* 296 mg/l . *Daphnia* toxicity : *Daphnia magna* LC₅₀ : 1220 mg/l . Harmful effects begin at : microorganisms 800 mg/l . Distribution : log P(O/W) : 0.88. BOD₅ : 1.5 g/g ; COD : 1.9 g/g : ThOD : 2.594 g/g.



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The following applies to HCl in general : Harmful effect on aquatic organisms . Harmful effect due to pH shift . Biological effects : hydrochloric acid (including such due to reaction) : lethal for fish as from 25 mg/l : Leuciscus idus LC 50 : 862 mg/l (IN- solution) . Harmful effects begin at : plants 6 mg/l . Does not cause biological oxygen deficit.
Do not allow to enter waters, waste water, or soil !

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- 13. DISPOSAL METHOD** : There are no uniform EC regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding laws and regulations . We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste .
- Disposal in compliance with official Regulations. Handle contaminated packaging as In the same way as the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled

14. TRANSPORT INFORMATION

Transport over land ADR/RID and GGVS/GGVE

GGVS/GGVE class : 8 Number and letter : 68 b

ADR/RID class : 8 Number and letter : 68 b

Name of material : CONT.BUTANOL AND HYDROCHLORIC ACID

Sea transport IMDG

IMDG class : 8 UN-No.: 2920 Packaging group: 11

EMS : 8-15 MFAG : 760.43

Correct technical name : CONT.BUTANOL AND HYDROCHLORIC ACID



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Air transport ICAO-TI and IATA-DGR

ICAO/IATA class : 8/ 3 UN/ID-No.: 2920 Packaging group : 11
Correct technical name : CONT.BUTANOL AND HYDROCHLORIC ACID

15. REGULATORY INFORMATION

Labelling according to EC Directives

Symbol : Xn Harmful
R- Phrases : 10-20-36/37/38 Flammable. Harmful by inhalation .
Irritating to eyes ,respiratory system and skin.

S-phrases : 26 In case of contact with eyes , rinse immediately
with plenty of water and, seek medical advice.

Contains : n-Butanol

Water pollution class : 1 (slightly polluting substance) (own classification)

16. OTHER INFORMATION

Reason for alteration :

General update.

Addition in the chapter ecology.

The information contained here in is based on the present state of our knowledge.
It characterizes the product with regard to the appropriate safety precautions. It
does not represent a guarantee of the properties of the product.
