KEY SCIENTIFIC PRODUCTS
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Safety Data Sheet

1 Identification

GHS Product Identifier

Product Name: **Kovac's Reagent**
Catolog Number: **K170, K980170**

Recommended use of the chemical and restriction on use

For invitro diagnostic use only by trained professionals.

Supplier's details

KEY SCIENTIFIC PRODUCTS, INC
1113 E REYNOLDS
STAMFORD, TX 79553

Telephone: 800-843-1539
325-773-3918

2 Hazard(s) identification

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 3), H226
Corrosove to Metals (Category 1), H290
Acute toxicity, Oral (Category 4), H302
Skin corrosion (Category 1B), H314
Acute toxicity, dermal (Category 4) H312
Acute toxicity, inhalation (Category 4), H332
Skin irritation (Category 2), H315
Serious eye damage (Category 1), H318
Serious eye damage (Category 2A), H319
Specific target organ toxicity - single exposure (Category 3), Respiatory system, Central nervious system, H335, H336

GHS label elements

Danger

Flammable liquid and vapour

May be corrosive to metals

Harmful if swallowed

Causes skin irritation

Causes serious eye damage

Causes serious eye irritation

May cause respiratory irritation

May cause drowsiness or dizziness

Causes damage to organs

Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

Keep container tightly closed.

Keep only in original container.

Ground/bond container and receiving equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.

IF ON SKIN: Wash with plenty of soap and water.

IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a POISON CENTER or doctor/physician.

Call a POISON CENTER or doctor/physician if you feel unwell.

If skin irritation occurs: Get medical advice/attention.

Take offcontaminated clothing and wash before reuse.

In case of fire: Use dry sand, dry chemical or alcohol foam to extinguish.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container to an approved waste disosal plant.

Other hazards which do not result in classification

None.

3 Composition/information on ingredients

Description	CAS Number	EINECS Number	%	Note
Hydrochloric acid	7647-01-0	231-595-7	9.3	
p-Aminbenzoic acid 99%	150-13-0	205-753-0	5	
Butyl alcohol	71-36-3	200-751-6	75	

4 First-aid measures

Description of necessary first-aid measures

EYES: Rince thoroughly with water for at least 15 minutes and consult a physician.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin: Remove contaminated clothing. Wash with plenty of soap and water.

5 Fire-fighting measures

Suitable extinguishing media

Carbondioxide (CO2) foam dry powder

Specific hazards arising from the chemical

Carbon oxides

Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Wear lab coat, gloves, and safety glasses. Avoid dust formation. Avoid breathing vapors, mist, or gas.
Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Sweep up and shovel without creating dust. Contain in suitable, closed container for disposal.

7 Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid dust and aerosol formation. Ensure adequate ventilation. Avoid inhalation of vapor or mist. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventiilated place.

8 Exposure controls/personal protection

Control parameters

USA.ACGIH Theshold Limit Values (TLV) n-butanol
CAS# 71-36-3
TWA 20 ppm
C 50 ppm
150 mg/m3

USA. NIOSH Recommended Exposure Limits

n-butanol
CAS# 71-36-3
TWA Control parameters 100 ppm

USA.ACGIH Theshold Limit Values (TLV)

hydrochloric acid
CAS# 7647-01-0
C 2 ppm

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the day.

Individual protection measures

Eye/face protection: Safety glasses with side shields comforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN (EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection: Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9 Physical and chemical properties

Physical and chemical properties

Appearance:	**Form:** powder/liquid **Color**: clear/white
Odor:	ethanolic
Odor Threshhold:	No data available
pH:	No data available
Melting point/freezing point:	Melting point/range: -90 C (-130 F)
Melting point:	No data available
Flash point:	35C 95 F) - closed cup
Evaporation rate:	No data available
Flammability:	No data available
Upper/lower flammability/explosion limits:	Upper explotion limit: 11.2% (V) Lower explotion limit: 1.4% (V)
Vapor pressure:	No data available
Vapor density:	No data available
Relative density:	No data available
Water solubility:	No data available
Partition coefficient (n-octal/water):	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Explosive properties:	No data available
Other safety information	
Solubility in other solvents:	No data available
Surface tension:	No data available
Relative vapor density:	No data available

10 Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions

Possibility of hazardous reactions

Vapors may form explosive mixture with air.

Conditions to avoid

Heat, flames, and sparks.

Incompatible materials

Oxidizing agents, Alkali metals, Ammonia, Acid chlorides, Acid anhydrides

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions-Carbon oxides
Other decomposition products: No data available
In the event of fire: see section 5

11 Toxicological information

Toxicological (health) effects

Acute toxicity
LD50 Oral - Rat - 790 mg/kg

Inhalation
No data available

Dermal
No data available
LD50 Dermal Rabbit - > 880 mg/kg
Remarks: Liver: Other changes. Kidney, Ireter, Bladder: Other changes. Blood: Changes in spleen.
No data available

Skin corrosion/irritation
Skin - Rabbit: Severe skin irritation - 2 h

Serious eye damage
Eyes - Rabbit - Severe eye irritation

Respiratory or skin sensitisation
No data available

Germ cell mutagenicity
Ames test
Salmonella typhimurium
Result: negative

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproduction toxicity
No data abailable

Developmental Toxicity
No data abailable

Specific target organ-single exposure
Inhalation - May cause respiratory irritation

Specific target organ-repeated exposure
No data available

Aspiration hazard
No data available

Additional information
RTECS: QL2800000

Cough, Shortness of breath, Headache, Nausea, Vomiting.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence
Kidney - Irregulaties - Based on Human Evidence

12 Ecological information

Toxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

13 Disposal considerations

Disposal methods

Product
Contact a licensed professional waste disposal service to dispose of this material.

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

14 Transport information

UN Number

DOT (US)
UN number: 1120 Class: 3 Packing group: III
Proper shipping name:Butanol Solutions
Reportable Quantity: No
Posion Inhalation Hazard: No

DOT (US)
UN number: 1789 Class: 3 Packing group: II
Proper shipping name:Hydrochloric Acid
Reportable Quantity: RQ
Posion Inhalation Hazard: No

IMDG
UN number: 17890 Class: 8 Packing group: II EMS-No: F-A, S-B
Proper shipping name: Hydrochloric Acid

IMDG
UN number: 1120 Class: 3 Packing group: III EMS-No: F-E, S-D
Proper shipping name: Butanol Solutions

IATA
UN number: 1120 Class: 3 Packing group: III
Proper shipping name: Butanol Solutions

UN number: 1789 Class: 8 Packing group: II
Proper shipping name: Hydrochloric Acid

15 Regulatory information

Safety, health and environmental regulations specific for the product in question

SARA 302 Components
No chemicals in the material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
The following components are subject to reporting levels established by SARA Title III, section 313:

	CAS-No.	Revision Date
Hydrochloric Acid	7647-01-0	2013-02-08
	CAS-No.	Revision Date
n-butanol	71-36-3	2007-07-01

SARA 311/312 Hazards

Acute Health Hazard, Fire Hazard, Chronic Health Hazard

16 Other information

Other information

Further Information

The above information, to the best of our knowledge, is accurate. Key Scientific Products assumes no liability whatsoever for the accuracy or completeness of the information stated above. Final determination of suitability of materials is the sole resposibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards may be described, we cannot guarantee that these are the only hazards that exist.