



SAFETY DATA SHEET

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Section 1 Identification of the Substance/mixture and of the Company/undertaking

1.1 Product Identifier

Product Name MicroScan Kovac's Reagent
Part Number 10444426, 10444544, 10444552, 6664-30/W, B1010-41A, B1015-41, B1015-49

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product Use For In Vitro Diagnostic Use. See product literature for details.

1.3 Details of the supplier of the safety data sheet

Manufacturer

Beckman Coulter, Inc.
250 S. Kraemer Blvd
Brea, CA 92821, U.S.A.
Tel: 800-854-3633

EC REP Address

Beckman Coulter Eurocenter S.A.
22, rue Juste-Oliver, Case Postale 1044,
CH-1260 Nyon 1, Switzerland.
Telephone +41 (0)22 365 36 11
Monday through Friday, 9:00 am to
7:00pm)

e-mail address SDSNT@beckman.com

1.4 Emergency telephone number

Telephone number (24H) Chemtrec Emergency Tel No. U.S.A. 800-424-9300, International (001) 703-527-3887

Distributor and Emergency Phone No.

Refer to attached list, Document ID: [472050](#), for local distributor and emergency phone numbers.

Section 2 Hazards Identification

2.1 Classification of substance or mixture

Product Description Mixture
Light yellow; Clear; Liquid; Pungent

Classification according to EC 1272/2008 (CLP/GHS)

Corrosive To Metal Category 1
Flammable Liquids, Category 3
Acute Toxicity Oral, Category 4
Acute Toxicity Inhalation, Category 4
Skin Irritation Category 2
Eye Irritation Category 2
Specific Target Organ Toxicity Single Exposure Category 3
Aquatic Hazard Long term, Category 3

Classification according to EC Directives 1999/45/EC and 67/548/EEC

Xn;R20-36/37/38

Section 2 Hazards Identification (Continued)

Classification according to US-OSHA (HCS 29 CFR 1910.1200) and UN GHS

Corrosive To Metal Category 1
Flammable Liquids, Category 3
Acute Toxicity Oral, Category 4
Acute Toxicity Inhalation, Category 4
Specific Target Organ Toxicity Single Exposure Category 3
Aquatic Hazard Long term, Category 3

2.2 Label Elements

According to EC 1272/2008 (CLP/GHS), US-OSHA and UN GHS

Hazardous Ingredients

Hydrochloric Acid
4-Dimethylaminobenzaldehyde
3-Methylbutan-1-ol

Pictogram



Signal Word

WARNING

Hazard Statements

H226 Flammable liquid and vapour.
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements

P210 Keep away from heat, hot surfaces, and sparks. No smoking.
P233 Keep container tightly closed.
P234 Keep only in original container.
P240 Ground container and receiving equipment.
P241 Use explosion-proof electrical equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharge.
P261 Avoid breathing vapours.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves, protective clothing and eye/face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.

Section 2 Hazards Identification (Continued)

P303+P361+P353 IF ON SKIN (or hair): Rinse skin with water.
P304+P340 IF INHALED: Remove person to fresh air and keep at rest in a position comfortable 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.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P330 Rinse mouth.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before use.
P370+P378 In case of fire: Use water spray for extinction.
P390 Absorb spillage to prevent material damage.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P406 Store in corrosive resistant container with a resistant inner liner.
P501 Dispose of contents/container in accordance with local/national regulations
Product label will display most significant precautionary statements.

2.3 Other hazards

Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

See Section 11 Toxicological Information for more detailed health information.

Section 3 Composition and Information on Ingredients

3.2 Mixtures

Hazardous Ingredients:		Hazard Classification of Pure Ingredients			
Chemical Name	% by wt.	EU-67/548/EEC	EU 1272/2008 CLP/GHS	GHS	
3-Methylbutan-1-ol CAS # 123-51-3 EINECS # 204-633-5 Index # Not available	55 - 65	No	Acute Tox. Inhal. 4 Eye Irrit. 2 Flam. Liq. 3 STOT SE 3 Skin Irrit. 2 H226; H315; H319; H332; H335	Acute Tox. Inhal. 4 Eye Irrit. 2 Flam. Liq. 3 STOT SE 3 Skin Irrit. 2 H226; H315; H319; H332; H335	
Hydrochloric Acid CAS # 7647-01-0 EINECS # 231-595-7 Index # 017-002-01-X	10 - 15	C;R34-37	Acute Tox. Oral 4 STOT SE 3 Skin Corr. 1B H302; H314; H335	Acute Tox. Oral 4 STOT SE 3 Skin Corr. 1B H302; H314; H335	
4-Dimethylaminobenzaldehyde CAS # 100-10-7 EINECS # 202-819-0 Index # Not available	5 - 10	No	Acute Tox. Oral 3 Aquatic Longterm 3 H301; H412	Acute Tox. Oral 3 Aquatic Longterm 3 H301; H412	

See section 8 for available Occupational exposure limits

See Section 15 for additional regulatory information

See Section 16 for hazard class, hazard statements and risk phrase description

Section 4 First Aid Measures

4.1 Description of first aid measures

Inhalation	If product is inhaled, move exposed individual to fresh air. If individual is not breathing, begin artificial respiration immediately and obtain medical attention.
Eye Contact	If product enters eyes, wash eyes gently under running water for 15 minutes or longer, making sure that the eyelids are held open. If pain or irritation occur, obtain medical attention.
Skin Contact	In case of skin contact, flush with copious amounts of water for at least 15 minutes. If pain or irritation occur, obtain medical attention.
Ingestion	If ingested, wash mouth out with water. If irritation or discomfort occurs, seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

May cause irritation of the eyes, skin, and respiratory system.
See Section 11 Toxicological Information for more detailed health information.

4.3 Indication of any immediate medical attention and special treatment needed

No specific medical attention or treatment required.

Section 5 Fire Fighting Measures

Flammable Properties Flammable liquid and vapor.

5.1 Extinguishing Media Dry chemical, carbon dioxide or alcohol resistant foam. Use water spray to cool containers exposed to fire.

5.2 Special hazards arising from the substance or mixture

Special Fire and Explosion Hazards

Vapors form explosive mixtures with air above flash point. Vapors are heavier than air; fire may flash from ignition source back along vapor trail.

Hazardous Combustion Products

Oxides of carbon

5.3 Advice for fire fighters

Protective Equipment Self-contained breathing apparatus is recommended for firefighters in all chemical fire situations.

5.4 Additional information No further relevant information available.

Section 6 Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions Observe general safety guidelines for protection; avoid eye and skin contact.
Wear protective gloves, protective clothing and eye/face protection.

Section 6 Accidental Release Measures (Continued)

- 6.2 Environmental Precautions** Contain spill to prevent migration or evaporation.
Do not allow the undiluted product to enter sewers/surface or ground water.
Dispose of contents/container in accordance with local regulations
- 6.3 Methods and material for containment and cleaning up**
- Spill and Leak Procedures** Ventilate area. Remove all sources of ignition. Contain spill and collect with inert absorbent and place in a suitable container for disposal.
Dispose of all waste material in accordance with local guidelines.
- 6.4 Reference to other sections** Refer sections 8 and 13.

Section 7 Handling and Storage

- 7.1 Precautions for safe handling** Use good laboratory procedures; avoid eye and skin contact.
- 7.2 Conditions for safe storage, including any incompatibilities**
- Store at 15 to 30°C, as directed on the product label.
To maintain product quality, store according to the instructions in the product labeling.
Store away from strong acids, strong bases, strong oxidizers and incompatible materials (section 10).
- 7.3 Specific end uses** No further relevant information available.

Section 8 Exposure Controls and Personal Protection

- 8.1 Control parameters**
- Exposure Limits**
- US OSHA**
- | | |
|--------------------------------------|--|
| 3-Methylbutan-1-ol
CAS # 123-51-3 | 100 ppm TWA; 360 mg/m ³ TWA |
| Hydrochloric Acid
CAS # 7647-01-0 | 5 ppm Ceiling; 7 mg/m ³ Ceiling |
- ACGIH**
- | | |
|--------------------------------------|---------------------------|
| 3-Methylbutan-1-ol
CAS # 123-51-3 | 125 ppm STEL; 100 ppm TWA |
| Hydrochloric Acid
CAS # 7647-01-0 | 2 ppm Ceiling |
- DFG MAK**
- | | |
|--------------------------------------|---|
| 3-Methylbutan-1-ol
CAS # 123-51-3 | 80 ppm Peak (isomers) (listed under Pentanol); 292 mg/m ³ Peak (isomers) (listed under Pentanol); 20 ppm TWA MAK; 73 mg/m ³ TWA MAK |
| Hydrochloric Acid
CAS # 7647-01-0 | 4 ppm Peak; 6 mg/m ³ Peak; 2 ppm TWA MAK; 3.0 mg/m ³ TWA MAK |

Section 8 Exposure Controls and Personal Protection (Continued)

Ireland

3-Methylbutan-1-ol CAS # 123-51-3	100 ppm TWA; 360 mg/m ³ TWA; 450 mg/m ³ STEL (as NCO); 125 ppm STEL
Hydrochloric Acid CAS # 7647-01-0	5 ppm TWA; 8 mg/m ³ TWA; 10 ppm STEL (as F); 15 mg/m ³ STEL

IOELVs

Hydrochloric Acid CAS # 7647-01-0	5 ppm TWA; 8 mg/m ³ TWA; 10 ppm STEL; 15 mg/m ³ STEL
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NIOSH

3-Methylbutan-1-ol CAS # 123-51-3	500 ppm IDLH; 125 ppm STEL; 450 mg/m ³ STEL; 100 ppm TWA; 360 mg/m ³ TWA
Hydrochloric Acid CAS # 7647-01-0	50 ppm IDLH

Japan

3-Methylbutan-1-ol CAS # 123-51-3	100 ppm OEL; 360 mg/m ³ OEL
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8.2 Exposure controls

Engineering Controls

No special engineering controls are required. Use with good general ventilation.

Eye Protection

Safety glasses or chemical goggles should be worn to prevent eye contact. Refer U.S. OSHA 29 CFR 1910.133, European Standard EN166 or appropriate government standards.

Skin Protection

Impervious gloves, such as Nitrile or equivalent, should be worn to prevent skin contact. Refer U.S. OSHA 29 CFR 1910.138, European Standard EN374 or appropriate government standards.

Respiratory Protection

Under normal conditions, the use of this product should not require respiratory protection. If overexposure should occur and ventilation is not adequate to maintain airborne concentrations at acceptable levels, the use of respiratory protection should be evaluated by a qualified professional.

Section 9 Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid	Specific Gravity (Water=1.0)	Not determined
Color	Light yellow	Solubility	
Transparency	Clear	Water	Miscible
Odor	Pungent	Organic	Not determined
pH	<2	Partition coefficient: n-octanol/water	Not determined
Freezing Point	Not determined	Auto-ignition Temp.	Not determined

Section 9 Physical and Chemical Properties (Continued)

Boiling Point	Not determined	Decomposition Temperature	Not determined
Flash Point	57°C (134.6°F)	Percent Volatiles	Not determined
Evaporation Rate	Not determined	Vapor Pressure	Not determined
Flammability (Solid, Gas)	Not applicable	Viscosity	Not determined
Flammability Limits	Not determined	Explosive Properties	Not applicable
Vapor Density	Not determined	Oxidizing Properties	Not applicable
Odor Threshold	3-Methylbutan-1-ol no geometric mean air odor threshold Hydrochloric Acid no geometric mean air odor threshold		

9.2 Other Information No further relevant information available.

Section 10 Stability and Reactivity

10.1 Reactivity	No further relevant information available.
10.2 Chemical Stability	The product is stable in accordance with recommended storage conditions.
10.3 Possibility of hazardous reactions	Avoid exposure to heat and incompatible materials.
10.4 Conditions to Avoid	Avoid exposure to heat and direct sunlight.
10.5 Incompatible materials	Oxidizing agents
10.6 Hazardous Decomposition Products	When stored as labeled, no known hazardous decomposition products are formed during the shelf-life of this product.

Section 11 Toxicological Information

11.1 Information on toxicological effects

Toxicity Data for Hazardous Ingredients

3-Methylbutan-1-ol
CAS # 123-51-3

Dermal LD50 Rabbit 3250 mg/kg; Oral LD50 Rat 1300 mg/kg

Hydrochloric Acid
CAS # 7647-01-0

Dermal LD50 Rabbit >5010 mg/kg; Inhalation LC50 Rat 1.68 mg/L 1 h; Oral LD50 Rat 238 - 277 mg/kg

Primary Routes of Exposure Eye contact, ingestion, inhalation, and skin contact.

Skin Corrosion/Irritation May cause skin irritation.

Serious eye damage/eye irritation May cause eye irritation.

Respiratory/skin sensitization No data available.

Section 11 Toxicological Information (Continued)

Carcinogenicity	No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP, OSHA or 1272/2008 EC regulation.
Germ cell mutagenicity	No data available.
Reproductive Toxicity	No data available.
Specific target organ toxicity – single exposure	May cause respiratory irritation.
Specific target organ toxicity – repeated exposure	No data available.
Aspiration hazard	No data available.
Other Information	May be harmful if swallowed May be harmful if inhaled

Section 12 Ecological Information

12.1 Ecotoxicity	
Fresh Water Species	
4-Dimethylaminobenzaldehyde CAS # 100-10-7	96 h LC50 Pimephales promelas: 45.7 mg/L [flow-through]
Microtox	No information available.
Water Flea	
3-Methylbutan-1-ol CAS # 123-51-3	48 h EC50 Daphnia magna: 260 mg/L
Fresh Water Algae	
3-Methylbutan-1-ol CAS # 123-51-3	72 h EC50 Desmodesmus subspicatus: 493 mg/L; 96 h EC50 Desmodesmus subspicatus: 181 mg/L
12.2 Persistence and degradability	Not determined for the product.
12.3 Bioaccumulation	Not determined for the product.
12.4 Mobility in soil	Not determined for the product.
12.5 Results of PBT and vPvB assessment	Not determined for the product. PBT: Not applicable, vPvB: Not applicable.
12.6 Other Adverse Effects	This product is classified as environmentally hazardous. Do not allow undiluted product to enter sewer/surface or ground water. Dispose of contents/container to in accordance with local/national regulations

Section 13 Disposal Considerations

13.1 Waste treatment methods	
Product Waste Disposal	Chemical residues and remains should be routinely handled as special waste. This must be disposed of in compliance with anti-pollution and other laws of the country concerned. To ensure compliance we recommend that you contact the relevant (local) authorities and/or an approved waste-disposal company for information.

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Package disposal

Dispose of waste product, unused product and contaminated packaging in compliance with federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information.

13.2 Additional information

Suggested European waste catalogue 18 01 06* - chemicals consisting of or containing dangerous substances. Dispose in accordance with national, state and local waste regulations.

Section 14 Transport Information

Shipping Information	IATA	IMDG	US DOT	European ADR	Canadian TDG
14.1 UN/ID Number	2924	2924	2924	2924	PIN - 2924
14.2 Shipping Name	Flammable liquids, corrosive, n.o.s. (3-methylbutan-1-ol, Hydrogen chloride)				
14.3 Hazard Class	3 Flammable Liquids	3 Flammable liquids	3 Flammable liquid	3 Flammable Liquids	3 Flammable Liquids
Subsidiary Risk	8 Corrosives	8 Corrosive substances	8 Corrosive material	8 Corrosive substances	8 Corrosives
Classification Code	Not applicable	Not applicable	Not applicable	FC	Not applicable
14.4 Packing Group	III	III	III	III	III
Special Provisions	A3, A803	223, 274	Not applicable	274	16
Additional information					
IATA ERG Code	3C	Not applicable	Not applicable	Not applicable	Not applicable
EmS	Not applicable	F-E, S-C	Not applicable	Not applicable	Not applicable
NAERG Code	Not applicable	Not applicable	132	Not applicable	132
14.5 Environmental Hazards					
Marine Pollutant	Not applicable	No	Not applicable	Not applicable	Not applicable
14.6 Special Precautions for user	Warning: Flammable and corrosive liquid				
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable				

Section 15 Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture US Federal and State Regulations

SARA 313	Hydrochloric Acid is subject to reporting requirements of Section 313, Title III of SARA. 1.0 % de minimis concentration
CERCLA RG's, 40 CFR 302.4	Hydrochloric Acid is listed.

Section 15 Regulatory Information (Continued)

California Proposition 65 No ingredients listed.

Massachusetts MSL 3-Methylbutan-1-ol is listed.
Hydrochloric Acid is listed.

New Jersey Dept. of Health RTK List

3-Methylbutan-1-ol is listed.
Hydrochloric Acid is listed.

Pennsylvania RTK 3-Methylbutan-1-ol is listed.
Hydrochloric Acid is listed.

EU Regulations

This SDS complies with EC Regulations 1907/2006 (REACH) and amendments.

Water Hazard Class (Germany) WGK 1, low water endangering

REACH 1907/2006 EC - Annex XIV - list of substances subject to authorization.

No ingredients listed.

According to EC Directives (1999/45/EC and 67/548 EEC)

Harmful
Xn



Risk and Safety Phrases

R20 Harmful by inhalation.
R36/37/38 Irritating to eyes, respiratory system and skin.

Canada

This product is exempt from WHMIS label and SDS requirements.

PIN 2924

Ingredients on Ingredient Disclosure List

3-Methylbutan-1-ol
Hydrochloric Acid

Ingredients with unknown toxicological properties

Product is exempt

15.2 Chemical Safety Assessment A Chemical Safety Assessment has not been carried out.

Some hazardous ingredients listed in Section 15 are below OSHAs and WHMIS' 1.0% w/w (0.1% for carcinogens) or EU's ingredient specific concentrations required for reporting in Section 3.

Section 16 Other Information

Beckman Coulter Safety Rating	Flammability: 2 Health: 2 Reactivity with Water: 0 Contact: 2	Code 0=None 1=Slight 2=Caution 3=Severe
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Hazard Class, hazard statements and risk phrase description from section 3

C - Corrosive
R34 Causes burns.
R37 Irritating to respiratory system.

Section 16 Other Information (Continued)

Acute Tox. Inhal. 4 - Acute Toxicity Inhalation, Category 4
Acute Tox. Oral 3 - Acute Toxicity Oral, Category 3
Acute Tox. Oral 4 - Acute Toxicity Oral, Category 4
Eye Irrit. 2 - Eye Irritation Category 2
Flam. Liq. 3 - Flammable Liquids, Category 3
Aquatic Longterm 3 - Aquatic Hazard Long term, Category 3
Skin Corr. 1B - Skin Corrosion Category 1B
Skin Irrit. 2 - Skin Irritation Category 2
STOT SE 3 - Specific Target Organ Toxicity Single Exposure Category 3
H226 - Flammable liquid and vapour.
H301 - Toxic if swallowed.
H302 - Harmful if swallowed.
H314 - Causes severe skin burns and eye damage.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H332 - Harmful if inhaled.
H335 - May cause respiratory irritation.
H412 - Harmful to aquatic life with long lasting effects.

Abbreviations and Acronyms

ACGIH - American Conference of Governmental Industrial Hygienists
ADR - European Agreement Concerning The International Carriage Of Dangerous Goods By Road
CERCLA - The Comprehensive Environmental Response, Compensation, and Liability Act
CLP - Classification, Labeling and Packaging
DFGMAK - Republic Germany's maximum exposure limit
GHS - Globally Harmonized System
HCS - Hazard Communication Standard
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
ICAO - International Civil Aviation Organization
IMDG - International Maritime Dangerous Goods
IOELVs - European Unions' Indicative Occupational Exposure Limit Values
NIOSH - National Institute for Occupational Safety and Health
NTP - National Toxicology Program
OSHA - Occupational Safety and Health Administration
PBT - Persistent bioaccumulative and toxic substances
SARA - Superfund Amendments and Reauthorization Act
TDG - Canadian Transportation Of Dangerous Goods Regulations.
UN GHS - United Nations Globally Harmonized System
US DOT - United States Department of Transportation
WHMIS - Workplace Hazardous Material Information System
vPvB - Very persistent and very bioaccumulative substances
LC50 - Lethal Concentration, 50%
LD50 - Lethal Dose, 50%

Section 16 Other Information (Continued)

EC50 - Effective Concentration, 50%

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