

**HYDRANAL™Coulomat E****34726-500ML**

Version 1.7

Issuing date

Revision Date 02/26/2020

Print Date 09/23/2020

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****Product information**

Trade name : HYDRANAL™Coulomat E

Number : 000000020504

Recommended use of the chemical and restrictions on use : Laboratory chemicals

Manufacturer or supplier's details : Honeywell Specialty Chemicals Seelze GmbH  
Wunstorfer Straße 40  
Seelze, 30926

For further information, please contact: : 1-800-368-0050  
+1-231-726-3171  
(Monday-Friday, 9:00am-5:00pm)

**In case of emergency call** : **Medical: 1-800-498-5701 or +1-303-389-1414**  
: **Transportation (CHEMTREC): 1-800-424-9300 or +1-703-527-3887**  
: **In Japan: +(81)-345209637**  
: (24 hours/day, 7 days/week)

**2. HAZARDS IDENTIFICATION****Classification of the substance or mixture**

Classification of the substance or mixture : Flammable liquids, Category 2  
Acute toxicity, Category 4, Inhalation  
Serious eye damage, Category 1  
Reproductive toxicity, Category 1B  
Specific target organ toxicity - single exposure, Category 1, Eyes, Nervous system, Systemic toxicity  
Specific target organ toxicity - repeated exposure, Category 1  
Short-term (acute) aquatic hazard, Category 3

**GHS Label elements, including precautionary statements**

Symbol(s) :



Signal word :

: Danger

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- Hazard statements : Highly flammable liquid and vapour.  
May be harmful if swallowed.  
Causes serious eye damage.  
Harmful if inhaled.  
May damage fertility or the unborn child.  
Causes damage to organs.  
Causes damage to organs through prolonged or repeated exposure.  
Harmful to aquatic life.
- Precautionary statements : **Prevention:**  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ ventilating/ lighting equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Do not breathe 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.  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection/face protection.
- Response:**  
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.  
Immediately call a POISON CENTER/ doctor.  
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
- Storage:**  
Store in a well-ventilated place. Keep cool.  
Store locked up.
- Disposal:**  
Dispose of contents/ container to an approved waste disposal plant.

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical nature : Mixture

Chemical name	CAS-No.	Concentration
Ethanol Ethanol	64-17-5	>=50.00 - <70.00 %
Diethanolamine Diethanolamine	111-42-2	>=10.00 - <20.00 %
Methanol Methanol	67-56-1	>=5.00 - <10.00 %
Imidazol hydrobromide Imidazol hydrobromide	101023-55-6	>=5.00 - <10.00 %
Sulphur dioxide Sulphur dioxide	7446-09-5	>=5.00 - <10.00 %
1H-Imidazole monohydriodide 1H-Imidazole monohydriodide	68007-08-9	>=5.00 - <10.00 %
Imidazole Imidazole	288-32-4	>=1.00 - <5.00 %
Iodine Iodine	7553-56-2	>=1.00 - <5.00 %

Note: Designated Substances Class 3

Note: Organic Solvents Class 2

Note: Substances Subject to be Notified Names

**4. FIRST AID MEASURES**

- General advice : First aider needs to protect himself.  
Move out of dangerous area.  
Take off all contaminated clothing immediately.
- Inhalation : Move to fresh air.  
Keep patient warm and at rest.  
Call a physician immediately.
- Skin contact : Wash off immediately with plenty of water.  
If skin irritation persists, call a physician.

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- Eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Protect unharmed eye.
- Ingestion : When swallowed, allow water to be drunk.  
Do NOT induce vomiting.  
Call a physician immediately.
- Notes to physician : Treat symptomatically.

**5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry powder
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during firefighting : Flammable.  
Vapours may form explosive mixtures with air.  
Vapours are heavier than air and may spread along floors.  
Vapors may travel to areas away from work site before igniting/flashing back to vapor source.  
In case of fire hazardous decomposition products may be produced such as:  
Hydrogen halides  
Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke.
- Special protective equipment for firefighters : Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.
- Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.  
Ensure adequate ventilation.  
Wear personal protective equipment. Unprotected persons must be kept away.
- Environmental precautions : Should not be released into the environment.
- Methods and materials for : Ventilate the area.

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containment and cleaning up

Do not use sparking tools.  
 Use explosion-proof equipment.  
 Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

**7. HANDLING AND STORAGE**
**Handling**

Precautions for safe handling : Wear personal protective equipment.  
 Use only in well-ventilated areas.  
 Avoid exposure - obtain special instructions before use.

Advice on protection against fire and explosion : Keep product and empty container away from heat and sources of ignition.  
 No smoking.  
 Take precautionary measures against static discharges.  
 Vapours may form explosive mixtures with air.

**Storage**

Conditions for safe storage, including any incompatibilities : Keep only in the original container, tightly closed, in a well ventilated place.  
 Store at room temperature.  
 (Ambient temperature: > 0 < 35°C)  
 Protect from atmospheric moisture and water.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
**Components with workplace control parameters**

Components	CAS-No.	Value	Control parameters	Update	Basis
Methanol Methanol	67-56-1	TL : Threshold limits	(200 ppm)	08 2006	ISHL:Industrial Safety and Health Law OEL

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		SKIN_DES : Skin designation:	Can be absorbed through the skin.	04 2007	Japan Society for Occupational Health:Japan Society for Occupational Health allowable concentration recommendatio n value
		TWA : Time weighted average	260 mg/m3 (200 ppm)	04 2007	Japan Society for Occupational Health:Japan Society for Occupational Health allowable concentration recommendatio n value
Iodine Iodine	7553-56- 2	TWA : Time weighted average	1 mg/m3 (0.1 ppm)	04 2007	Japan Society for Occupational Health:Japan Society for Occupational Health allowable concentration recommendatio n value
		TWA : Time weighted average	1 mg/m3 (0.1 ppm)	04 2007	Japan Society for Occupational Health:Japan Society for Occupational Health allowable concentration recommendatio n value

**Individual protection measures, such as personal protective equipment**

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Respiratory protection	: In case of insufficient ventilation wear suitable respiratory equipment. Recommended Filter type: A: Organic vapour type
Hand protection	: butyl-rubber Break through time: > 480 min Glove thickness: 0.7 mm Gloves must be inspected prior to use. Replace when worn.
Eye protection	: Safety goggles
Skin and body protection	: Protective suit
Hygiene measures	: Take off all contaminated clothing immediately. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday. When using do not eat or drink.
Protective measures	: Do not breathe vapours or spray mist. Ensure that eyewash stations and safety showers are close to the workstation location.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical state	: liquid
Colour	: yellowish to brownish, clear
Odour	: aromatic
pH	: Note: no data available
Melting point/range	: Note: no data available
Boiling point/boiling range	: 67 °C
Flash point	: 54 °F (12 °C)
Evaporation rate	: Note: no data available

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Lower explosion limit	:	Note: not determined
Upper explosion limit	:	Note: not determined
Vapour pressure	:	Note: no data available
Vapour density	:	Note: no data available
Density	:	0.980 g/cm <sup>3</sup> at 20 °C
Water solubility	:	Note: completely miscible
Partition coefficient: n-octanol/water	:	Note: no data available
Ignition temperature	:	Note: not determined
Decomposition temperature	:	Note: No decomposition if used as directed.
Viscosity, dynamic	:	Note: no data available
Viscosity, kinematic	:	Note: no data available

**10. STABILITY AND REACTIVITY**

Chemical stability	:	Stable under recommended storage conditions.
Possibility of hazardous reactions	:	Hazardous polymerisation does not occur.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials to avoid	:	Oxidizing agents Oxidizing solids Oxidizing liquids
Hazardous decomposition products	:	In case of fire hazardous decomposition products may be produced such as:



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Hydrogen halides  
Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke.

**11. TOXICOLOGICAL INFORMATION**

- Acute oral toxicity : Note: Harmful if swallowed. The product has not been tested. The information is derived from the properties of the individual components.
- Acute inhalation toxicity : Note: Harmful by inhalation. The product has not been tested. The information is derived from the properties of the individual components.
- Acute dermal toxicity : Note: no data available
- Skin irritation : Species: Rabbit  
Result: No skin irritation
- Eye irritation : Species: Rabbit  
Result: Risk of serious damage to eyes.  
Note: The toxicological data mentioned are derived from an analogous product.
- Sensitisation : Note: no data available
- Repeated dose toxicity : Note: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2. The product has not been tested. The information is derived from the properties of the individual components.
- Genotoxicity in vitro  
Diethanolamine : Note: In vitro tests did not show mutagenic effects.
- Methanol : Note: In vitro tests did not show mutagenic effects.
- 1H-Imidazole  
monohydriodide : Result: negative  
Method: Mutagenicity (Escherichia coli - reverse mutation assay)

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Imidazole : Test Method: In vitro mammalian cell gene mutation test  
Cell type: Chinese hamster fibroblasts  
Metabolic activation: with and without metabolic activation  
Result: negative  
Method: OECD Test Guideline 476

: Test Method: Ames test  
Result: negative

: Test Method: Chromosome aberration test in vitro  
Cell type: Chinese hamster cells  
Result: negative  
Method: OECD Test Guideline 473

: Test Method: reverse mutation assay  
Cell type: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Result: negative

Genotoxicity in vivo  
Diethanolamine

: Test Method: Chromosome aberration test  
Species: Mouse, male and female  
Application Route: Dermal  
Method: OECD Test Guideline 474  
Result: negative

Methanol

: Note: In vivo tests did not show mutagenic effects

Imidazole

: Test Method: Micronucleus test  
Species: Mouse, male and female  
Cell type: Bone marrow  
Application Route: Oral  
Method: OECD Test Guideline 474  
Result: negative

Teratogenicity  
Imidazole

: Species: Rat Application Route: Oral

No observed adverse effect level: 60 mg/kg body weight  
No observed adverse effect level: 60 mg/kg body weight  
Method: OECD Test Guideline 414  
Result: Embryotoxic effects and adverse effects on the offspring were detected.

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Further information

Ethanol

: Confirmed animal carcinogen with unknown relevance to humans.

**12. ECOLOGICAL INFORMATION****Toxicity**

Toxicity to fish

: Note: Not classified due to data which are conclusive although insufficient for classification.  
The product has not been tested. The information is derived from the properties of the individual components.

Toxicity to daphnia and other aquatic invertebrates

: Note: Not classified due to data which are conclusive although insufficient for classification.  
The product has not been tested. The information is derived from the properties of the individual components.

Toxicity to algae

: Note: Not classified due to data which are conclusive although insufficient for classification.  
The product has not been tested. The information is derived from the properties of the individual components.

Toxicity to bacteria

Ethanol

: LC0: 6,500 mg/l  
Species: Pseudomonas putida

EC50: 35,470 mg/l

Exposure time: 5 min

Species: Photobacterium phosphoreum

EC50: 34,634 mg/l

Exposure time: 30 min

Species: Photobacterium phosphoreum

Methanol

: EC50: 43,000 mg/l  
Exposure time: 5 min  
Species: Photobacterium phosphoreum

EC50: 40,000 mg/l

Exposure time: 15 min

Species: Photobacterium phosphoreum

EC50: 39,000 mg/l

Exposure time: 25 min

Species: Photobacterium phosphoreum

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1H-Imidazole  
monohydriodide: Respiration inhibition  
EC50: > 1,000 mg/l  
Exposure time: 3 h  
Species: activated sludge  
Method: OECD 209Respiration inhibition  
NOEC: 320 mg/l  
Exposure time: 3 h  
Species: activated sludge  
Method: OECD 209Biodegradability  
Imidazole: Result: Readily biodegradable.  
Method: OECD Test Guideline 301A**Other adverse effects**Additional ecological  
information

: Do not flush into surface water or sanitary sewer system.

Biochemical Oxygen Demand (BOD)

Diethanolamine : Value: 885 mg/g

Chemical Oxygen Demand (COD)

Diethanolamine : Value: 1,352 mg/g

**13. DISPOSAL CONSIDERATIONS**WDPCL Waste Disposal and  
Public Cleansing Law

: Specially Controlled Industrial Waste

Disposal methods

: In accordance with local and national regulations.

**14. TRANSPORT INFORMATION****ADR**

UN/ID No.

: UN 1993

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Description of the goods : FLAMMABLE LIQUID, N.O.S.

(METHANOL, ETHANOL)

Class : 3

Packing group : II

Classification Code : F1

Hazard Identification Number : 33

Labels : 3

Special Provision 640D

**IATA**

UN/ID No. : UN 1993

Description of the goods : Flammable liquid, n.o.s.  
(Methanol, Ethanol)

Class : 3

Packing group : II

Labels : 3

Packing instruction (cargo  
aircraft) : 364

Packing instruction : 353

(passenger aircraft)

Packing instruction : Y341

(passenger aircraft)

**IMDG**

UN/ID No. : UN 1993

Description of the goods : FLAMMABLE LIQUID, N.O.S.  
(METHANOL, ETHANOL)

Class : 3

Packing group : II

Labels : 3

EmS Number 1 : F-E

EmS Number 2 : S-E

Marine pollutant : no

**15. REGULATORY INFORMATION**
**National regulatory information**
Vessel Safety Law : Flammable liquids (Article 2 and 3 of rules on shipping and  
JP VSL storage of dangerous goods and its Attached Table 1)Aviation Law : Flammable liquid (Article 194 of The Enforcement Rules of  
JP AVL Aviation Law and its Attached Table 1)

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Fire Service Law : Group 4 Flammable liquids  
 Type 1 petroleums  
 Hazardous rank II  
 Water soluble liquid  
 Keep away from fire

Poisonous and Deleterious  
 Substances Control Law : Not relevant

**Other international regulations**
**Notification status**

US. Toxic Substances  
 Control Act : All chemical substances in this product are either listed on the  
 TSCA Inventory or are in compliance with a TSCA Inventory  
 exemption.

China. Inventory of Existing  
 Chemical Substances  
 (IECSC) : On the inventory, or in compliance with the inventory

Note : Note: Because of the potential specific inventory listing of  
 components of this product line, further, more detailed  
 information can be requested from  
 SafetyDataSheet@Honeywell.com.

**16. OTHER INFORMATION**

	<b>HMIS III</b>	<b>NFPA</b>
Health hazard	: 3*	3
Flammability	: 3	3
Physical Hazard	: 0	
Instability	:	0

\* - Chronic health hazard

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the  
 use of individuals trained in the particular system.

**Further information**

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group