



610, rue Adanac, Quebec (Quebec) G1C 7B7

## SAFETY DATA SHEET

Poison control center (Quebec)  
(800) 463-5060

Tel. (Qc): (418) 660-8666

Tel. (Mtl): (450) 443-1046

Fax. (Qc): (418) 660-8998

### SECTION 1. IDENTIFICATION

Product name : HYDRANAL™-Composite 2

Number : HS-0998

Product Use Description : Laboratory chemicals

Manufacturer or supplier's details : Laboratoire MAT  
610, Rue Adanac  
Québec (Québec) G1C 7B7  
CANADA  
418-660-8666 / 1-800-890-8666  
labmat.com  
labmat@labmat.com

In case of emergency call : 418-660-8666 / 1-800-890-8666 (Lun-Ven 8-16h)  
CANUTEC: 613-996-6666

### SECTION 2. HAZARDS IDENTIFICATION

#### Emergency Overview

Form : liquid

Color : brown

Odor : characteristic

#### Classification of the substance or mixture

Classification of the substance or mixture : Carcinogenicity, Category 2  
Reproductive toxicity, Category 1B  
Specific target organ toxicity - repeated exposure, Category 1

#### GHS Label elements, including precautionary statements

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## HYDRANAL™-Composite 2

Symbol(s)

:



Signal word

: Danger

Hazard statements

: Suspected of causing cancer.  
May damage fertility or the unborn child.  
Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

: **Prevention:**  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
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 personal protective equipment as required.

**Response:**

IF exposed or concerned: Get medical advice/ attention.

**Storage:**

Store locked up.

**Disposal:**

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

### Carcinogenicity

IARC: 2-Methylimidazole 693-98-1  
Group 2B: Possibly carcinogenic to humans

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

: Mixture

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| Chemical name               | CAS-No.    | Concentration      |
|-----------------------------|------------|--------------------|
| 2-(2-Ethoxyethoxy)ethanol   | 111-90-0   | >=70.00 - <90.00 % |
| Imidazole                   | 288-32-4   | >=5.00 - <10.00 %  |
| Sulphur dioxide             | 7446-09-5  | >=5.00 - <10.00 %  |
| Iodine                      | 7553-56-2  | >=1.00 - <5.00 %   |
| 2-Methylimidazole           | 693-98-1   | >=5.00 - <10.00 %  |
| 1H-Imidazole monohydriodide | 68007-08-9 | >=1.00 - <5.00 %   |

### SECTION 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.
- 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

- Most important symptoms/effects, acute and delayed : No information available.

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Indication of immediate medical attention and special treatment needed, if necessary : Treat symptomatically.

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Water spray  
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 : Fire may cause evolution of:  
Carbon monoxide  
Carbon dioxide (CO<sub>2</sub>)  
Sulphur oxides  
Nitrogen oxides (NO<sub>x</sub>)
- 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.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

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

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national regulations (see section 13).

### SECTION 7. HANDLING AND STORAGE

#### Handling

Precautions for safe handling : Wear personal protective equipment.  
Use only in well-ventilated areas.

Advice on protection against fire and explosion : Keep away from sources of ignition - No smoking.  
Normal measures for preventive fire protection.

#### 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:  $> 0 < 35^{\circ}\text{C}$ )  
Protect from atmospheric moisture and water.  
Do not store for longer periods (not  $> 1$  month) at temperatures above  $25^{\circ}\text{C}$ . Higher temperature leads to an accelerated decrease in titer.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.  
Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment.  
Avoid exposure - obtain special instructions before use.

Engineering measures : Use with local exhaust ventilation.  
Prevent vapour buildup by providing adequate ventilation during and after use.

Eye protection : Safety goggles

Hand protection : Wear nitrile rubber gloves to avoid contact with the skin.  
Gloves must be inspected prior to use.  
Replace when worn.

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- Skin and body protection : Protective suit
- Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.
- 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.

### Exposure Guidelines

| Components                | CAS-No.   | Value                               | Control parameters                | Update     | Basis                                                                                                                    |
|---------------------------|-----------|-------------------------------------|-----------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------|
| 2-(2-Ethoxyethoxy)ethanol | 111-90-0  | TWA :<br>Time weighted average      | 165 mg/m <sup>3</sup><br>(30 ppm) | 12<br>2007 | CAD ON<br>OEL:Canada.<br>Ontario OELs.<br>(Control of<br>Exposure to<br>Biological or<br>Chemical Agents),<br>as amended |
| 2-(2-Ethoxyethoxy)ethanol | 111-90-0  | TWA :<br>Time weighted average      | 165 mg/m <sup>3</sup><br>(30 ppm) | 12<br>2007 | CAD ON<br>OEL:Canada.<br>Ontario OELs.<br>(Control of<br>Exposure to<br>Biological or<br>Chemical Agents),<br>as amended |
| Sulphur dioxide           | 7446-09-5 | STEL :<br>Short term exposure limit | 13 mg/m <sup>3</sup><br>(5 ppm)   | 10<br>2006 | CAD AB<br>OEL:Canada.<br>Alberta OELs<br>(Occupational Health & Safety Code, Schedule 1, Table 2), as amended            |

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|                 |           |                                      |                      |            |                                                                                                                           |
|-----------------|-----------|--------------------------------------|----------------------|------------|---------------------------------------------------------------------------------------------------------------------------|
| Sulphur dioxide | 7446-09-5 | TWA :<br>Time<br>weighted<br>average | 5.2 mg/m3<br>(2 ppm) | 10<br>2006 | CAD AB<br>OEL:Canada.<br>Alberta OELs<br>(Occupational<br>Health & Safety<br>Code, Schedule 1,<br>Table 2), as<br>amended |
|-----------------|-----------|--------------------------------------|----------------------|------------|---------------------------------------------------------------------------------------------------------------------------|

|                 |           |                                              |         |            |                                                                                                                                                                                                            |
|-----------------|-----------|----------------------------------------------|---------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sulphur dioxide | 7446-09-5 | STEL :<br>Short<br>term<br>exposure<br>limit | (5 ppm) | 07<br>2007 | CAD BC<br>OEL:Canada.<br>British Columbia<br>OELs.<br>(Occupational<br>Exposure Limits for<br>Chemical Biological<br>Substances,<br>Occupational Health<br>and Safety<br>Regulation 296/97,<br>as amended) |
|-----------------|-----------|----------------------------------------------|---------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                 |           |                                      |         |            |                                                                                                                                                                                                            |
|-----------------|-----------|--------------------------------------|---------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sulphur dioxide | 7446-09-5 | TWA :<br>Time<br>weighted<br>average | (2 ppm) | 07<br>2007 | CAD BC<br>OEL:Canada.<br>British Columbia<br>OELs.<br>(Occupational<br>Exposure Limits for<br>Chemical Biological<br>Substances,<br>Occupational Health<br>and Safety<br>Regulation 296/97,<br>as amended) |
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| Sulphur dioxide | 7446-09-5 | STEL :<br>Short<br>term<br>exposure<br>limit                           | (0.25 ppm)            | 03<br>2011 | CAD MB<br>OEL:Canada.<br>Manitoba OELs<br>(Reg. 217/2006,<br>The Workplace<br>Safety And Health<br>Act), as amended                |
| Sulphur dioxide | 7446-09-5 | STEL :<br>Short<br>Term<br>Exposure<br>Limit<br>(STEL):                | 10.4 mg/m3<br>(5 ppm) | 12<br>2007 | CAD ON<br>OEL:Canada.<br>Ontario OELs.<br>(Control of<br>Exposure to<br>Biological or<br>Chemical Agents),<br>as amended           |
| Sulphur dioxide | 7446-09-5 | TWA :<br>Time<br>weighted<br>average                                   | 5.2 mg/m3<br>(2 ppm)  | 12<br>2007 | CAD ON<br>OEL:Canada.<br>Ontario OELs.<br>(Control of<br>Exposure to<br>Biological or<br>Chemical Agents),<br>as amended           |
| Sulphur dioxide | 7446-09-5 | 15 MIN<br>ACL : 15<br>minute<br>average<br>contamin<br>ation<br>limit: | (5 ppm)               | 05<br>2009 | CAD SK<br>OEL:Canada.<br>Saskatchewan<br>OELs (Occupational<br>Health and Safety<br>Regulations, 1996,<br>Table 21), as<br>amended |



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|                 |           |                                                                   |                      |            |                                                                                                                                               |
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| Sulphur dioxide | 7446-09-5 | 8 HR<br>ACL : 8<br>hour<br>average<br>contamin<br>ation<br>limit: | (2 ppm)              | 05<br>2009 | CAD SK<br>OEL:Canada.<br>Saskatchewan<br>OELs (Occupational<br>Health and Safety<br>Regulations, 1996,<br>Table 21), as<br>amended            |
| Sulphur dioxide | 7446-09-5 | TWA :<br>Time<br>weighted<br>average                              | 5.2 mg/m3<br>(2 ppm) | 09<br>2017 | OEL<br>(QUE):Canada.<br>Quebec OELs.<br>(Ministry of Labor -<br>Regulation<br>respecting<br>occupational health<br>and safety), as<br>amended |
| Sulphur dioxide | 7446-09-5 | STEL :<br>Short<br>term<br>exposure<br>limit                      | 13 mg/m3<br>(5 ppm)  | 09<br>2017 | OEL<br>(QUE):Canada.<br>Quebec OELs.<br>(Ministry of Labor -<br>Regulation<br>respecting<br>occupational health<br>and safety), as<br>amended |
| Iodine          | 7553-56-2 | CEILING<br>: Ceiling<br>Limit<br>Value:                           | 1 mg/m3<br>(0.1 ppm) | 10<br>2006 | CAD AB<br>OEL:Canada.<br>Alberta OELs<br>(Occupational<br>Health & Safety<br>Code, Schedule 1,<br>Table 2), as<br>amended                     |

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| Iodine | 7553-56-2 | CEILING<br>: Ceiling<br>Limit<br>Value: | (0.1 ppm) | 09<br>2011 | CAD BC<br>OEL:Canada.<br>British Columbia<br>OELs.<br>(Occupational<br>Exposure Limits for<br>Chemical Biological<br>Substances,<br>Occupational Health<br>and Safety<br>Regulation 296/97,<br>as amended) |
|--------|-----------|-----------------------------------------|-----------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|        |           |                                      |            |            |                                                                                                                     |
|--------|-----------|--------------------------------------|------------|------------|---------------------------------------------------------------------------------------------------------------------|
| Iodine | 7553-56-2 | TWA :<br>Time<br>weighted<br>average | (0.01 ppm) | 03<br>2014 | CAD MB<br>OEL:Canada.<br>Manitoba OELs<br>(Reg. 217/2006,<br>The Workplace<br>Safety And Health<br>Act), as amended |
|--------|-----------|--------------------------------------|------------|------------|---------------------------------------------------------------------------------------------------------------------|

|                        |   |                                                  |  |  |  |
|------------------------|---|--------------------------------------------------|--|--|--|
| Further<br>information | : | Form of exposure : Inhalable fraction and vapor. |  |  |  |
|------------------------|---|--------------------------------------------------|--|--|--|

|        |           |                                              |           |            |                                                                                                                     |
|--------|-----------|----------------------------------------------|-----------|------------|---------------------------------------------------------------------------------------------------------------------|
| Iodine | 7553-56-2 | STEL :<br>Short<br>term<br>exposure<br>limit | (0.1 ppm) | 03<br>2017 | CAD MB<br>OEL:Canada.<br>Manitoba OELs<br>(Reg. 217/2006,<br>The Workplace<br>Safety And Health<br>Act), as amended |
|--------|-----------|----------------------------------------------|-----------|------------|---------------------------------------------------------------------------------------------------------------------|

|                        |   |                                   |  |  |  |
|------------------------|---|-----------------------------------|--|--|--|
| Further<br>information | : | Form of exposure : Vapor fraction |  |  |  |
|------------------------|---|-----------------------------------|--|--|--|

|        |           |                                                         |           |            |                                                                                                                          |
|--------|-----------|---------------------------------------------------------|-----------|------------|--------------------------------------------------------------------------------------------------------------------------|
| Iodine | 7553-56-2 | STEL :<br>Short<br>Term<br>Exposure<br>Limit<br>(STEL): | (0.1 ppm) | 01<br>2020 | CAD ON<br>OEL:Canada.<br>Ontario OELs.<br>(Control of<br>Exposure to<br>Biological or<br>Chemical Agents),<br>as amended |
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|                     |   |                                   |
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| Further information | : | Form of exposure : Vapor fraction |
|---------------------|---|-----------------------------------|

|        |           |                                |            |            |                                                                                                                          |
|--------|-----------|--------------------------------|------------|------------|--------------------------------------------------------------------------------------------------------------------------|
| Iodine | 7553-56-2 | TWA :<br>Time weighted average | (0.01 ppm) | 01<br>2020 | CAD ON<br>OEL:Canada.<br>Ontario OELs.<br>(Control of<br>Exposure to<br>Biological or<br>Chemical Agents),<br>as amended |
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|                     |   |                                                  |
|---------------------|---|--------------------------------------------------|
| Further information | : | Form of exposure : Inhalable fraction and vapor. |
|---------------------|---|--------------------------------------------------|

|        |           |                                         |           |            |                                                                                                                                    |
|--------|-----------|-----------------------------------------|-----------|------------|------------------------------------------------------------------------------------------------------------------------------------|
| Iodine | 7553-56-2 | Ceiling :<br>Ceiling<br>Limit<br>Value: | (0.1 ppm) | 05<br>2009 | CAD SK<br>OEL:Canada.<br>Saskatchewan<br>OELs (Occupational<br>Health and Safety<br>Regulations, 1996,<br>Table 21), as<br>amended |
|--------|-----------|-----------------------------------------|-----------|------------|------------------------------------------------------------------------------------------------------------------------------------|

|        |           |   |                             |            |                                                                                                                                               |
|--------|-----------|---|-----------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Iodine | 7553-56-2 | : | Recirculation<br>prohibited | 09<br>2017 | OEL<br>(QUE):Canada.<br>Quebec OELs.<br>(Ministry of Labor -<br>Regulation<br>respecting<br>occupational health<br>and safety), as<br>amended |
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| Iodine | 7553-56-2 | CEILING<br>: Ceiling<br>Limit<br>Value: | 1.0 mg/m3<br>(0.1 ppm) | 09<br>2017 | OEL<br>(QUE):Canada.<br>Quebec OELs.<br>(Ministry of Labor -<br>Regulation<br>respecting<br>occupational health<br>and safety), as<br>amended |
|--------|-----------|-----------------------------------------|------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------|

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

|                             |                           |
|-----------------------------|---------------------------|
| Physical state              | : liquid                  |
| Color                       | : brown                   |
| Odor                        | : characteristic          |
| Odor threshold              | : Note: No data available |
| pH                          | : 3.0 - 4.0 at , 20 °C    |
| Melting point/range         | : Note: No data available |
| Boiling point/boiling range | : Note: No data available |
| Flash point                 | : 217 °F (103 °C)         |
| Evaporation rate            | : Note: No data available |
| Lower explosion limit       | : Note: No data available |
| Upper explosion limit       | : Note: No data available |
| Vapor pressure              | : Note: No data available |

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|                                        |                                               |
|----------------------------------------|-----------------------------------------------|
| Vapor density                          | : Note: No data available                     |
| Density                                | : ca. 1.110 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: No data available                     |
| Decomposition temperature              | : Note: No decomposition if used as directed. |
| Viscosity, dynamic                     | : Note: No data available                     |
| Viscosity, kinematic                   | : Note: No data available                     |

### SECTION 10. STABILITY AND REACTIVITY

|                                    |                                                                                                                                     |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Reactivity                         | : Not classified as a reactivity hazard.                                                                                            |
| Chemical stability                 | : Stable under normal conditions.                                                                                                   |
| Possibility of hazardous reactions | : Hazardous polymerisation does not occur.                                                                                          |
| Conditions to avoid                | : Protect from atmospheric moisture and water.<br>Heat, flames and sparks.                                                          |
| Incompatible materials             | : Strong oxidizing agents                                                                                                           |
| Hazardous decomposition products   | : In case of fire hazardous decomposition products may be produced such as:<br>Carbon monoxide<br>Carbon dioxide (CO <sub>2</sub> ) |

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Sulphur oxides  
Nitrogen oxides (NOx)

### SECTION 11. TOXICOLOGICAL INFORMATION

|                                            |                                                                                                                                                   |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Acute oral toxicity                        | : LD50: > 2,000 mg/kg<br>Species: Rat<br>Note: The toxicological data mentioned are derived from an analogous product.                            |
| Acute inhalation toxicity                  | : Note: No data available                                                                                                                         |
| Acute dermal toxicity                      | : LD50: > 2,000 mg/kg<br>Species: Rat<br>Note: The toxicological data mentioned are derived from an analogous product.                            |
| Skin irritation                            | : Species: Rabbit<br>Result: No skin irritation<br>Note: The toxicological data mentioned are derived from an analogous product.                  |
| Eye irritation                             | : Species: Rabbit<br>Result: No eye irritation<br>Note: The toxicological data mentioned are derived from an analogous product.                   |
| Sensitisation<br>2-(2-Ethoxyethoxy)ethanol | : Species: Guinea pig<br>Classification: non-sensitizing                                                                                          |
| 2-Methylimidazole                          | : Mouse local lymph node assay<br>Species: Mouse<br>Result: Did not cause sensitisation on laboratory animals.<br>Method: OECD Test Guideline 429 |

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|                                                          |                                                                                                                                                                                                    |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1H-Imidazole<br>monohydriodide                           | : Mouse local lymph node assay<br>Species: Mouse<br>Result: Does not cause skin sensitisation.<br>Method: OECD 429                                                                                 |
| Repeated dose toxicity<br>1H-Imidazole<br>monohydriodide | : Species: Rat<br>Application Route: Ingestion<br>Exposure time: (28 d)<br>NOEL: 50 mg/kg/d<br>Method: Repeated dose (28 days) toxicity (oral)                                                     |
| Genotoxicity in vitro                                    | : Test Method: Ames test<br>Result: negative<br>Note: The toxicological data mentioned are derived from an<br>analogous product.                                                                   |
| Genotoxicity in vivo<br>2-(2-Ethoxyethoxy)ethanol        | : Species: Rat, male<br>Cell type: Liver cells<br>Application Route: Oral<br>Method: OECD Test Guideline 486<br>Result: negative                                                                   |
|                                                          | : Test Method: Chromosome aberration test<br>Species: Mouse, male<br>Cell type: Bone marrow<br>Application Route: Intraperitoneal injection<br>Method: OECD Test Guideline 474<br>Result: negative |
| Imidazole                                                | : Test Method: Micronucleus test<br>Species: Mouse, male and female<br>Cell type: Bone marrow<br>Application Route: Oral<br>Method: OECD Test Guideline 474<br>Result: negative                    |
| Teratogenicity                                           |                                                                                                                                                                                                    |

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|                   |                                                                                                                                                                                                                                                                                     |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Imidazole         | : Species: RatApplication Route: Oral<br><br>No observed adverse effect level: 60 mg/kg body weight<br>No observed adverse effect level: 60 mg/kg body weight<br>Method: OECD Test Guideline 414<br>Result: Embryotoxic effects and adverse effects on the offspring were detected. |
| 2-Methylimidazole | : Species: RatApplication Route: Oral<br><br>No observed adverse effect level: >50 mg/kg body weight<br>No observed adverse effect level: 2 mg/kg body weight<br>Method: OECD Test Guideline 414<br>Result: Embryotoxic effects and adverse effects on the offspring were detected. |

## SECTION 12. ECOLOGICAL INFORMATION

|                                               |                                                                                                                                                     |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Toxicity to fish<br>2-(2-Ethoxyethoxy)ethanol | : flow-through test<br>LC50: 6,010 mg/l<br>Exposure time: 96 h<br>Species: Ictalurus punctatus (channel catfish)<br>Method: OECD Test Guideline 203 |
| Imidazole                                     | : static test<br>LC50: 283.6 mg/l<br>Exposure time: 48 h<br>Species: Leuciscus idus (Golden orfe)                                                   |
| Iodine                                        | : LC50: 1.67 mg/l<br>Exposure time: 96 h<br>Species: Oncorhynchus mykiss (rainbow trout)                                                            |
| 2-Methylimidazole                             | : static test<br>LC50: 190 mg/l<br>Exposure time: 96 h<br>Species: Leuciscus idus (Golden orfe)<br>Method: DIN 38412                                |
| 1H-Imidazole<br>monohydriodide                | : LC0: >= 100 mg/l<br>Exposure time: 96 h                                                                                                           |



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Species: Danio rerio (zebra fish)  
Method: OECD Test Guideline 203

### Toxicity to daphnia and other aquatic invertebrates

2-(2-Ethoxyethoxy)ethanol : static test  
LC50: 1,982 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 202

Imidazole : static test  
EC50: 341.5 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)  
Method: Directive 67/548/EEC, Annex V, C.2.

Iodine : LC50: 0.55 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)

2-Methylimidazole : static test  
EC50: 225.31 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)  
Method: Directive 67/548/EEC, Annex V, C.2.

1H-Imidazole monohydriodide : EC50: 1.4 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 202

EC0: 0.46 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 202

### Toxicity to algae

Imidazole : static test  
EC50: 133 mg/l  
Exposure time: 72 h  
Species: Desmodesmus subspicatus (green algae)  
Method: DIN 38412

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Iodine : Growth inhibition  
EC50: 0.13 mg/l  
Exposure time: 72 h  
Species: *Desmodesmus subspicatus* (green algae)  
Method: OECD Test Guideline 201

2-Methylimidazole : static test  
EC50: 256.3 mg/l  
Exposure time: 72 h  
Species: *Desmodesmus subspicatus* (green algae)  
Method: DIN 38412

static test  
EC50: 189 mg/l  
Exposure time: 72 h  
Species: *Desmodesmus subspicatus* (green algae)  
Method: DIN 38412

1H-Imidazole monohydriodide : Biomass  
EC50: 8.3 mg/l  
Exposure time: 72 h  
Species: *scenedesmus subspicatus*  
Method: OECD Test Guideline 201

Growth rate  
EC50: 34 mg/l  
Exposure time: 72 h  
Species: *scenedesmus subspicatus*  
Method: OECD Test Guideline 201

Biomass  
NOEC: 1 mg/l  
Exposure time: 72 h  
Species: *scenedesmus subspicatus*  
Method: OECD Test Guideline 201

Biomass  
NOEC: 1 mg/l  
Exposure time: 72 h  
Species: *scenedesmus subspicatus*  
Method: OECD Test Guideline 201

Toxicity to bacteria  
1H-Imidazole : Respiration inhibition

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monohydriodide  
EC50: > 1,000 mg/l  
Exposure time: 3 h  
Species: activated sludge  
Method: OECD 209

Respiration inhibition  
NOEC: 320 mg/l  
Exposure time: 3 h  
Species: activated sludge  
Method: OECD 209

### Elimination information (persistence and degradability)

Biodegradability : Zahn-Wellens Test  
Result: Readily biodegradable.  
Value: 78 %  
Note: Information given is based on data on the components  
and the toxicology of similar products.

### Further information on ecology

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

## SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

## SECTION 14. TRANSPORT INFORMATION

**DOT** Not dangerous goods

**TDG** Not dangerous goods

**IATA** Not dangerous goods

**IMDG** Not dangerous goods

# SAFETY DATA SHEET

## HYDRANAL™-Composite 2

### SECTION 15. REGULATORY INFORMATION

#### Inventories

|                                                                                      |                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.                                                                                                     |
| Australia. Industrial Chemicals Act (AICC), as amended                               | : On the inventory, or in compliance with the inventory                                                                                                                                                                                     |
| Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL) | : Not in compliance with the inventory                                                                                                                                                                                                      |
| Japan. Kashin-Hou Law List                                                           | : Not in compliance with the inventory                                                                                                                                                                                                      |
| Korea. Existing Chemicals Inventory (KECI)                                           | : Not in compliance with the inventory                                                                                                                                                                                                      |
| Philippines. Inventory of Chemicals and Chemical Substances (PICCS)                  | : Not in compliance with the inventory                                                                                                                                                                                                      |
| China. Inventory of Existing Chemical Substances (IECSC)                             | : On the inventory, or in compliance with the inventory                                                                                                                                                                                     |
| New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand        | : Not 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 <a href="mailto:SafetyDataSheet@Honeywell.com">SafetyDataSheet@Honeywell.com</a> . |

#### National regulatory information

: This material must be used in compliance with the TSCA

# SAFETY DATA SHEET

## HYDRANAL™-Composite 2

TSCA Research and Development Exemption requirements (40 CFR 720.36).

:

### WHMIS

|                   |   |                           |           |
|-------------------|---|---------------------------|-----------|
| <b>Components</b> | : | 2-(2-Ethoxyethoxy)ethanol | 111-90-0  |
|                   | : | Sulphur dioxide           | 7446-09-5 |
|                   | : | Iodine                    | 7553-56-2 |

### NPRI

Canadian National Pollutant Release Inventory (NPRI): No component is listed on NPRI.

## SECTION 16. OTHER INFORMATION

|                 | HMIS III | NFPA |
|-----------------|----------|------|
| Health hazard   | : 2      | 2    |
| Flammability    | : 1      | 1    |
| Physical Hazard | : 0      |      |
| Instability     | :        | 0    |

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

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.