1. Identification

   **Product identifier used on the label**

   **Irgamet® TT 50**

   **Recommended use of the chemical and restriction on use**
   
   *: additives

   * The “Recommended use” identified for this product is provided solely to comply with a US Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

   **Details of the supplier of the safety data sheet**

   **Company:**
   BASF CORPORATION
   100 Park Avenue
   Florham Park, NJ 07932, USA

   Telephone: +1 973 245-6000

   **Emergency telephone number**

   CHEMTREC: 1-800-424-9300
   BASF HOTLINE: 1-800-832-HELP (4357)

   **Other means of identification**

   Chemical family: aqueous solution
   Synonyms: Tolytriazole 50% sodium salt solution

2. Hazards Identification


   **Classification of the product**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox.</td>
<td>4 (oral)</td>
<td>Acute toxicity</td>
</tr>
<tr>
<td>Skin Corr./Irrit.</td>
<td>1A</td>
<td>Skin corrosion/irritation</td>
</tr>
<tr>
<td>Eye Dam./Irrit.</td>
<td>1</td>
<td>Serious eye damage/eye irritation</td>
</tr>
<tr>
<td>Aquatic Acute</td>
<td>2</td>
<td>Hazardous to the aquatic environment - acute</td>
</tr>
<tr>
<td>Aquatic Chronic</td>
<td>2</td>
<td>Hazardous to the aquatic environment - chronic</td>
</tr>
</tbody>
</table>

   **Label elements**
Safety Data Sheet
Irgamet® TT 50

Revision date: 2014/10/10
Version: 2.0

Pictogram:

- Danger symbol
- Warning symbol
- First aid symbol

Signal Word:
Danger

Hazard Statement:
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H401 Toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P273 Avoid release to the environment.
P260 Do not breathe dust or mist.
P270 Do not eat, drink or smoke when using this product.
P264 Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):
P310 Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303 + P361 + P352 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P391 Collect spillage.

Precautionary Statements (Storage):
P405 Store locked up.

Precautionary Statements (Disposal):
P501 Dispose of contents/container to hazardous or special waste collection point.

Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.


Emergency overview

DANGER:
CORROSIVE LIQUID.
Corrosive to skin and/or eyes.
MAY CAUSE BURNS.
Harmful if swallowed.
Irritating to respiratory system.
Avoid contact with the skin, eyes and clothing.
Eye wash fountains and safety showers must be easily accessible.
3. Composition / Information on Ingredients


<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Content (W/W)</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>64665-57-2</td>
<td>&gt;= 50.0 - &lt; 75.0 %</td>
<td>1H-Benzotriazole, 4(or 5)-methyl-, sodium salt</td>
</tr>
<tr>
<td>1310-73-2</td>
<td>&lt; 0.5 %</td>
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4. First-Aid Measures

Description of first aid measures

General advice:
Immediately remove contaminated clothing.

If inhaled:
Remove the affected individual into fresh air and keep the person calm. Seek medical attention.

If on skin:
Remove contaminated clothing. Rinse skin immediately with plenty of water for 15 - 20 minutes. If irritation develops, seek medical attention.

If in eyes:
Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed:
Rinse mouth immediately with water. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Do not induce vomiting due to aspiration hazard. Seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11. Further important symptoms and effects are so far not known. Hazards: No applicable information available.

Indication of any immediate medical attention and special treatment needed

Note to physician
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.
5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, dry powder, foam

Special hazards arising from the substance or mixture
Hazards during fire-fighting:
harmful vapours
Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters
Protective equipment for fire-fighting:
Wear a self-contained breathing apparatus in confined areas or when exposed to combustion products.

Further information:
Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Use personal protective clothing.

Environmental precautions
Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up
For small amounts: Pick up with absorbent material (e.g. sand, sawdust, general-purpose binder). Dispose of absorbed material in accordance with regulations.
For large amounts: Pump off product.
Spills should be contained, solidified, and placed in suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling
No special measures necessary provided product is used correctly.

Conditions for safe storage, including any incompatibilities
No applicable information available.

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

Storage stability:
Storage temperature: >= 0 °C
Protect from temperatures below: 0 °C

8. Exposure Controls/Personal Protection

Components with occupational exposure limits
Sodium Hydroxide OSHA PEL PEL 2 mg/m³ ; CLV 2 mg/m³ ;
ACGIH TLV CLV 2 mg/m³ ;

Advice on system design:
No applicable information available.

Personal protective equipment

Respiratory protection:
Wear respiratory protection if ventilation is inadequate. Respiratory protection in case of vapour/aerosol release.

Hand protection:
Wear chemical resistant protective gloves.

Eye protection:
Tightly fitting safety goggles (chemical goggles) and face shield.

Body protection:
Impermeable protective clothing

General safety and hygiene measures:
Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form: liquid
Odour: mild
Odour threshold: No applicable information available.
Colour: yellow to brown
pH value: 13.5 (25 °C)
Melting point: not determined
Boiling point: 100 °C
Sublimation point: Information applies to the solvent.
Flash point: No applicable information available.
Flammability: not flammable
Lower explosion limit: For liquids not relevant for classification and labelling. The lower explosion point may be 5 - 15 °C below the flash point.
Upper explosion limit: For liquids not relevant for classification and labelling.
Autoignition: not determined
Vapour pressure: No applicable information available.
Density: 1.18 - 1.21 g/cm³ (20 °C) The values mentioned are those of the active ingredient.
Relative density: No applicable information available.
Vapour density: No applicable information available.
Partitioning coefficient n-octanol/water (log Pow): 0.658 The values mentioned are those of the active ingredient.
Self-ignition temperature: not self-igniting
Thermal decomposition: not determined
Viscosity, dynamic: not determined
Viscosity, kinematic: No applicable information available.
% volatiles: not determined
Solubility in water: miscible
10. Stability and Reactivity

**Reactivity**
No hazardous reactions if stored and handled as prescribed/indicated.

**Chemical stability**
The product is stable if stored and handled as prescribed/indicated.

**Possibility of hazardous reactions**
No hazardous reactions when stored and handled according to instructions.
The product is chemically stable.

**Conditions to avoid**
No conditions to avoid anticipated.

**Incompatible materials**
strong acids, strong bases, strong oxidizing agents

**Hazardous decomposition products**
Decomposition products:
Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:
not determined

11. Toxicological information

**Primary routes of exposure**
Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

**Primary routes of entry**
Skin
Eyes
Inhalation.
Ingestion.

**Acute Toxicity/Effects**

**Acute toxicity**
Assessment of acute toxicity: The toxicity of the product is based on its corrosivity.

**Oral**
Type of value: LD50
Species: rat
Value: 920 mg/kg

Inhalation
No applicable information available.

Dermal
Type of value: LD50
Species: rabbit
Value: > 2,000 mg/kg

Assessment other acute effects
No applicable information available.

Irritation / corrosion
Assessment of irritating effects: Based on its pH, the product is regarded as corrosive.
Corrosive! Damages skin and eyes.
Irritating to respiratory system.

Skin
Species: rabbit
Result: Corrosive.

Eye
Species: rabbit
Result: Corrosive.

Sensitization
Assessment of sensitization: No sensitizing effect.

other
Species: guinea pig
Result: Non-sensitizing.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: No applicable information available.

Genetic toxicity
Assessment of mutagenicity: Based on the ingredients, there is no suspicion of a mutagenic effect.

Carcinogenicity
Assessment of carcinogenicity: The whole of the information assessable provides no indication of a carcinogenic effect.

Reproductive toxicity
Assessment of reproduction toxicity: Based on the ingredients, there is no suspicion of a toxic effect on reproduction.

Other Information
The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

Symptoms of Exposure
The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.
Further important symptoms and effects are so far not known.
12. Ecological Information

**Toxicity**

Aquatic toxicity
Assessment of aquatic toxicity:
Acutely toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment.

**Toxicity to fish**
LC50 (96 h) approx. 25 mg/l, Salmo gairdneri, syn. O. mykiss
The ecological data given are those of the active ingredient.

**Aquatic invertebrates**
EC50 (96 h) 280 mg/l, Daphnia magna
The ecological data given are those of the active ingredient.

**Aquatic plants**
EC50 (72 h) 26.2 mg/l (growth rate), Selenastrum capricornutum
The ecological data given are those of the active ingredient.

**Persistence and degradability**

**Elimination information**
70 % (28 d) Readily biodegradable.

**Bioaccumulative potential**

**Assessment bioaccumulation potential**
No data available.

**Mobility in soil**

**Assessment transport between environmental compartments**
No data available.

**Additional information**

Other ecotoxicological advice:
Do not discharge product into the environment without control.

13. Disposal considerations

**Waste disposal of substance:**
Dispose of in accordance with local authority regulations.

**RCRA:**
Not a hazardous waste under RCRA (40 CFR 261).

14. Transport Information

**Land transport**
USDOT
Hazard class: 8
Packing group: II
ID number: UN 3267
Hazard label: 8, EHSM
Proper shipping name: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (contains TRIAZOLE DERIVATIVE, SODIUM HYDROXIDE)

Sea transport
IMDG
Hazard class: 8
Packing group: II
ID number: UN 3267
Hazard label: 8, EHSM
Marine pollutant: YES
Proper shipping name: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (contains SODIUM 4(OR 5)-METHYL-1H-BENZOTRIAZOLIDE, SODIUM HYDROXIDE)

Air transport
IATA/ICAO
Hazard class: 8
Packing group: II
ID number: UN 3267
Hazard label: 8
Proper shipping name: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (contains SODIUM 4(OR 5)-METHYL-1H-BENZOTRIAZOLIDE, SODIUM HYDROXIDE)

15. Regulatory Information

VOC content:
not determined

Federal Regulations
Registration status:
Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Acute;

State regulations
State RTK CAS Number Chemical name
MA, NJ, PA 1310-73-2 Sodium Hydroxide

NFPA Hazard codes:
Health : 3 Fire: 1 Reactivity: 0 Special:

HMIS III rating
Health: 3 Flammability: 1 Physical hazard: 0
16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2014/10/10

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END OF DATA SHEET