1. Identification

Product identifier used on the label

OPTILL WG

Recommended use of the chemical and restriction on use

Recommended use*: herbicide

* The “Recommended use” identified for this product is provided solely to comply with a 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

Substance number: 263649
EPA Registration number: 7969-280
Molecular formula: C17 H17 Cl F4 N4 O5 S + C15 H19 N3 O3
Chemical family: uracil, alkaloid, herbicide, mixture
Synonyms: Saflufenacil + Imazethapyr

2. Hazards Identification


Classification of the product

<table>
<thead>
<tr>
<th>Classification</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reproductive toxicity</td>
<td>2</td>
<td>(unborn child)</td>
</tr>
<tr>
<td>Hazardous to the aquatic environment</td>
<td>1</td>
<td>- acute</td>
</tr>
<tr>
<td>Hazardous to the aquatic environment</td>
<td>1</td>
<td>- chronic</td>
</tr>
<tr>
<td>Combustible Dust</td>
<td></td>
<td>- Combustible Dust (1)</td>
</tr>
</tbody>
</table>
Label elements

Pictogram:

Signal Word:
Warning

Hazard Statement:
May form combustible dust concentration in air.
H361 Suspected of damaging the unborn child.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P264 Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P391 Collect spillage.
P308 + P311 IF exposed or concerned: Call a POISON CENTER or doctor/physician.
P337 + P311 If eye irritation persists: Call a POISON CENTER or doctor/physician.

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

Labeling of special preparations (GHS):
The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 10 % dermal.
The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 25 % Inhalation - dust.


Emergency overview

CAUTION:
HARMFUL IF SWALLOWED.
HARMFUL IF ABSORBED THROUGH SKIN.
May cause moderate but temporary irritation to the eyes.
KEEP OUT OF REACH OF CHILDREN.
KEEP OUT OF REACH OF DOMESTIC ANIMALS.
Avoid contact with the skin, eyes and clothing. 
Avoid inhalation of mists/vapours. 
Wash thoroughly after handling.

3. Composition / Information on Ingredients


<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Weight %</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>372137-35-4</td>
<td>17.8 %</td>
<td>Saflufenacil</td>
</tr>
<tr>
<td>81335-77-5</td>
<td>50.2 %</td>
<td>imazethapyr</td>
</tr>
<tr>
<td>577-11-7</td>
<td>0.1 - 1.0%</td>
<td>sodium-di-ethyl-hexyl-sulfosuccinate</td>
</tr>
<tr>
<td>1322-93-6</td>
<td>1.0 - 3.0%</td>
<td>Naphthalenesulfonic acid, bis(1-methylethyl)-, sodium salt</td>
</tr>
<tr>
<td>7783-20-2</td>
<td>15.0 - 20.0%</td>
<td>Ammonium sulphate</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Weight %</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>372137-35-4</td>
<td>17.8 %</td>
<td>Saflufenacil</td>
</tr>
<tr>
<td>81335-77-5</td>
<td>50.2 %</td>
<td>imazethapyr</td>
</tr>
<tr>
<td>32.0 %</td>
<td></td>
<td>Proprietary ingredients</td>
</tr>
</tbody>
</table>

4. First-Aid Measures

Description of first aid measures

General advice: 
Remove contaminated clothing.

If inhaled: 
Keep patient calm, remove to fresh air, seek medical attention.

If on skin: 
Wash thoroughly with soap and water.

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

If swallowed: 
Immediately rinse mouth and then drink 200-300 ml of water, 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.

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:
- foam, dry powder, carbon dioxide, water spray

Special hazards arising from the substance or mixture
Hazard during fire-fighting:
- carbon monoxide, carbon dioxide, Hydrocarbons, sulfur oxides, nitrogen oxides, acid halides, halogenated compounds
If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters
Protective equipment for fire-fighting:
- Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:
- Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions
- Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

Methods and material for containment and cleaning up
- Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Precautions for safe handling
RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect contents from the effects of light. Protect against heat. Protect from air. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Avoid aerosol formation. Avoid dust formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers. Follow label warnings even after container is emptied. The substance/product may be handled only by appropriately trained personnel. Avoid all direct contact
with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of
dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:
The relevant fire protection measures should be noted. Fire extinguishers should be kept handy.
Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear.
Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to
national electric code. Ground all transfer equipment properly to prevent electrostatic discharge.
Electrostatic discharge may cause ignition.

Dust explosion class: Dust explosion class 1 (Kst-value >0 up to 200 bar m s-1).

**Conditions for safe storage, including any incompatibilities**
Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from
textiles and similar materials.

Further information on storage conditions: Keep only in the original container in a cool, dry, well-
ventilated place away from ignition sources, heat or flame. Protect containers from physical damage.
Protect against contamination. The authority permits and storage regulations must be observed.
Protect from temperatures above: 40 °C
Changes in the properties of the product may occur if substance/product is stored above indicated
temperature for extended periods of time.

8. Exposure Controls/Personal Protection

Users of a pesticidal product should refer to the product label for personal protective
equipment requirements.

No occupational exposure limits known.

**Advice on system design:**
Whenever possible, engineering controls should be used to minimize the need for personal
protective equipment.

**Personal protective equipment**

**RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:**

**Respiratory protection:**
Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent)
organic vapour/particulate respirator. For situations where the airborne concentrations may exceed
the level for which an air purifying respirator is effective, or where the levels are unknown or
Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure
demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air
respirator (SAR) with escape provisions.

**Hand protection:**
Chemical resistant protective gloves. Protective glove selection must be based on the user’s
assessment of the workplace hazards.

**Eye protection:**
Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if
splashing hazard exists.
Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:
Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form: solid, granules
Odour: characteristic
Odour threshold: Not determined due to potential health hazard by inhalation.
Colour: beige to brown
pH value: approx. 2 - 4
(1 % (m), 25 °C)
Melting temperature: approx. 176 - 177 °C
The data given are those of the active ingredient.
Flash point: > 105 °C
Flammability: not determined
Lower explosion limit: As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Upper explosion limit: As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Bulk density: 31 lb/ft³
(23.5 °C)
Vapour density: not applicable
Self-ignition temperature: approx. > 200 °C
The statements are based on the properties of the individual components.
Thermal decomposition: carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, Sulphur dioxide, halogenated hydrocarbons, Hydrogen chloride, hydrogen fluoride, Hydrocarbons Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released.
Viscosity, dynamic: not applicable, the product is a solid
Solubility in water: dispersible
Evaporation rate: not applicable
Other Information: If necessary, information on other physical and chemical parameters is indicated in this section.
10. Stability and Reactivity

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

Corrosion to metals:
Corrosive effects to metal are not anticipated.

Oxidizing properties:
not fire-propagating

Dust explosivity characteristics:
Kst: 187 m.bar/s
ASTM standard method E1226 (20 liter dust sphere)
Pmax = 7.95 bar

Dust explosion class:
Dust explosion class 1 (Kst-value >0 up to 200 bar m s-1) (St 1)

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

Possibility of hazardous reactions
The product is chemically stable. Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid
Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme temperatures. Avoid prolonged exposure to extreme heat. Avoid contamination. Avoid electro-static discharge. Avoid prolonged storage. This product may form an explosive mixture if: 1. the dust is suspended in the atmosphere as a dust cloud AND 2. the concentration of the dust is above the lower explosion limit (LEL) AND 3. the limiting oxygen concentration (LOC) is exceeded.

Incompatible materials
strong oxidizing agents

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

Thermal decomposition:
Possible thermal decomposition products:
carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, Sulphur dioxide, halogenated hydrocarbons, Hydrogen chloride, hydrogen fluoride, Hydrocarbons
Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released.

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.
Acute Toxicity/Effects

Acute toxicity

Oral
Type of value: LD50
Species: rat
Value: > 2,000 mg/kg
No mortality was observed.

Inhalation
Type of value: LC50
Species: rat
Value: > 5.121 mg/l
Tested as dust aerosol.

Dermal
Type of value: LD50
Species: rat (male/female)
Value: > 2,000 mg/kg
No mortality was observed.

Assessment other acute effects
Assessment of STOT single:
The available information is not sufficient for evaluation.

Irritation / corrosion
Assessment of irritating effects: May cause slight irritation to the skin. May cause slight irritation to the eyes.

Skin
Species: rabbit
Result: non-irritant

Eye
Species: rabbit
Result: non-irritant

Sensitization
Assessment of sensitization: There is no evidence of a skin-sensitizing potential.

modified Buehler test
Species: guinea pig
Result: Non-sensitizing.

Aspiration Hazard
No aspiration hazard expected. The product has not been tested. The statement has been derived from the properties of the individual components.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. No substance-specific organotoxicity was observed after repeated administration to animals.

**Genetic toxicity**
Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

**Carcinogenicity**
Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

**Reproductive toxicity**
Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

**Teratogenicity**
Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: saflufenacil*
Assessment of teratogenicity: Indications of possible developmental toxicity/teratogenicity were seen in animal studies.

*Information on: imazethapyr*
Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies.

-----------------------------

**Other Information**
Misuse can be harmful to health.

**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.

**Medical conditions aggravated by overexposure**
Individuals with pre-existing diseases of the respiratory system, skin or eyes may have increased susceptibility to excessive exposures.

---

**12. Ecological Information**

**Toxicity**

**Aquatic toxicity**
Assessment of aquatic toxicity:
There is a high probability that the product is not acutely harmful to fish. There is a high probability that the product is not acutely harmful to aquatic invertebrates. Very toxic (acute effect) to aquatic plants.

**Toxicity to fish**
LC50 (96 h) > 100 mg/l, Oncorhynchus mykiss
Aquatic invertebrates
EC₅₀ (48 h) > 100 mg/l, Daphnia magna

Aquatic plants
EC₅₀ (72 h) 0.262 mg/l (growth rate), Pseudokirchneriella subcapitata

EC₁₀ (72 h) 0.069 mg/l (growth rate), Pseudokirchneriella subcapitata

Assessment of terrestrial toxicity
With high probability not acutely harmful to terrestrial organisms.

Persistence and degradability
Assessment biodegradation and elimination (H₂O)
The product has not been tested. The statement has been derived from the properties of the individual components.

Assessment biodegradation and elimination (H₂O)
Information on: saflufenacil
Not readily biodegradable (by OECD criteria).

Information on: imazethapyr
Not readily biodegradable (by OECD criteria).

Bioaccumulative potential
Assessment bioaccumulation potential
The product has not been tested. The statement has been derived from the properties of the individual components.

Assessment bioaccumulation potential
Information on: saflufenacil
Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Bioaccumulation potential
Information on: imazethapyr
Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Mobility in soil
Assessment transport between environmental compartments
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: saflufenacil
Following exposure to soil, the product trickles away and can dependant on degradation be transported to deeper soil areas with larger water loads.

Information on: imazethapyr

Following exposure to soil, the product trickles away and can dependant on degradation be transported to deeper soil areas with larger water loads.

Additional information

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

13. Disposal considerations

Waste disposal of substance:
Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal:
Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

RCRA:
This product is not regulated by RCRA.

14. Transport Information

Land transport
USDOT

Not classified as a dangerous good under transport regulations

Sea transport
IMDG
Hazard class: 9
Packing group: III
ID number: UN 3077
Hazard label: 9, EHSM
Marine pollutant: YES
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains IMAZETHAPYR)

Air transport
IATA/ICAO
Hazard class: 9
Packing group: III
ID number: UN 3077
Hazard label: 9, EHSM
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
15. Regulatory Information

Federal Regulations

Registration status:
Crop Protection TSCA, US released / exempt

EPCRA 311/312 (Hazard categories): Acute;

State regulations

State RTK CAS Number Chemical name
PA 7783-20-2 Ammonium sulphate

CA Prop. 65:
CA PROP 65: An assessment has determined that there is no significant risk present., PROP 65 warning(s) are not required for this product.

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

Labeling requirements under FIFRA

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

CAUTION:
HARMFUL IF SWALLOWED.
HARMFUL IF ABSORBED THROUGH SKIN.
May cause moderate but temporary irritation to the eyes.
KEEP OUT OF REACH OF CHILDREN.
KEEP OUT OF REACH OF DOMESTIC ANIMALS.
Avoid contact with the skin, eyes and clothing.
Avoid inhalation of mists/vapours.
Wash thoroughly after handling.

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2015/10/12

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring
the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.

END OF DATA SHEET