

Revision date : 2016/07/21 Version: 5.0

Page: 1/12 (30255549/SDS\_CPA\_US/EN)

# 1. Identification

Product identifier used on the label

# **BASAGRAN T&O HERBICIDE**

# 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

<u>Company:</u> 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:	24310
EPA Registration number:	7969-326
Molecular formula:	C10 H11 N2 O3 S Na
Chemical family:	benzothiadiazole
Synonyms:	sodium bentazon

# 2. Hazards Identification

## According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

## **Classification of the product**

Acute Tox.	4 (oral)	Acute toxicity
Eye Dam./Irrit.	2B	Serious eye damage/eye irritation
Skin Sens.	1B	Skin sensitization
Aquatic Acute	3	Hazardous to the aquatic environment - acute

Revision date : 2016/07/21 Version: 5.0 Page: 2/12 (30255549/SDS\_CPA\_US/EN)

## Label elements



Signal Word: Warning

Warning			
Hazard Statement: H320 H302 H317 H402	Causes eye irritation. Harmful if swallowed. May cause an allergic skin reaction. Harmful to aquatic life.		
Precautionary Statemer	ts (Prevention):		
P280	Wear protective gloves.		
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.		
P273	Avoid release to the environment.		
P272	Contaminated work clothing should not be allowed out of the workplace.		
P270	Do not eat, drink or smoke when using this product.		
P264	Wash with plenty of water and soap thoroughly after handling.		
Precautionary Statemer	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.		
P303 + P352	IF ON SKIN (or hair): Wash with plenty of soap and water.		
P333 + P311	If skin irritation or rash occurs: Call a POISON CENTER or doctor/physician.		
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.		
P330	Rinse mouth.		
P362 + P364	Take off contaminated clothing and wash it before reuse.		
P337 + P311	If eye irritation persists: Call a POISON CENTER or doctor/physician.		
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: 1 - 2 % dermal

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 1 - 2 % oral

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 1 - 2 % Inhalation - vapour

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 1 - 2 % Inhalation - mist

## According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

## Emergency overview

CAUTION:

Revision date : 2016/07/21 Version: 5.0 Page: 3/12 (30255549/SDS\_CPA\_US/EN)

KEEP OUT OF REACH OF CHILDREN. KEEP OUT OF REACH OF DOMESTIC ANIMALS. HARMFUL IF SWALLOWED. HARMFUL IF ABSORBED THROUGH SKIN. May cause moderate but temporary irritation to the eyes. Avoid contact with the skin, eyes and clothing.

# 3. Composition / Information on Ingredients

## According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

CAS	Number
5072	3-80-3

Chemical name 1H-2,1,3-Benzothiadiazin-4(3H)-one, 3-(1-methylethyl)-, 2,2-dioxide, sodium salt

## According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

CAS Number	Weight %	Chemical name
50723-80-3	44.0 %	bentazon
	56.0 %	Proprietary ingredients

Weight %

44.0 %

## 4. First-Aid Measures

## **Description of first aid measures**

## **General advice:**

Remove contaminated clothing.

First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or physician for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

## 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

Revision date : 2016/07/21 Version: 5.0

Page: 4/12 (30255549/SDS\_CPA\_US/EN)

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, carbon dioxide, foam

## Special hazards arising from the substance or mixture

Hazards during fire-fighting: carbon monoxide, carbon dioxide, Hydrocarbons, nitrogen oxides, sulfur oxides If product is heated above decomposition temperature, toxic vapours will be released.

## 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

Revision date : 2016/07/21 Version: 5.0 Page: 5/12 (30255549/SDS\_CPA\_US/EN)

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.

## 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, wellventilated 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.

# 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) TC23C Chemical/Mechanical type filter system to remove a combination of particles, gas and vapours. 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.

Revision date : 2016/07/21 Version: 5.0 Page: 6/12 (30255549/SDS\_CPA\_US/EN)

## **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: Odour: Odour threshold: Colour:	liquid mild, uncharacteristic, sweetish Not determined due to potential health ha yellow to red brown	zard by inhalation.
pH value: Melting point:	8 - 9 approx. 0 °C ( 1,013.3 hPa) Information applies to the solvent.	
Boiling point:	approx. 100 °C ( 1,013.3 hPa) Information applies to the solvent.	
Flash point:	Non-flammable. not applicable	
Flammability: Lower explosion limit:	not self-igniting As a result of our experience with this	
Lower explosion innit.	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	
opport on proceeds and an	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.	
Autoignition:	555 °C	(Directive
-		92/69/EEC, A.15)
Density:	1.19 g/cm3	
Bulk density: Vapour density:	9.91 lb/USg not applicable	
Thermal decomposition:	carbon monoxide, carbon dioxide, Sulphu	ır dioxide, nitrogen
	oxide, nitrogen dioxide, Hydrocarbons	
	Stable at ambient temperature. If product	
	decomposition temperature toxic vapours product is heated above decomposition te	
	fumes may be released.	
	160 °C, 190 kJ/kg (DSC (OECD 113))	
	Not a substance liable to self-decomposit transport regulations, class 4.1.	ion according to UN
Viscosity, dynamic:	approx. 9 mPa.s	(OECD 114)
	(20 °C)	· - · · /

Revision date : 2016/07/21 Version: 5.0

> Solubility in water: Molar mass: Evaporation rate: Other Information:

Page: 7/12 (30255549/SDS\_CPA\_US/EN)

5.3 mPa.s	
( 40 °C)	
fully soluble	
262.2 g/mol	
not applicable	
If necessary, information on other physica	l 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 an oxidizer.

## **Chemical stability**

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

## Possibility of hazardous reactions

The product is chemically stable.

## **Conditions to avoid**

Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures.

#### Incompatible materials

strong bases, strong acids, 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, Sulphur dioxide, nitrogen oxide, nitrogen dioxide, Hydrocarbons Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. If product is heated above decomposition temperature hazardous fumes may be released.

160 °C, 3 K/min (DSC (OECD 113))

Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

# 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.

Revision date : 2016/07/21 Version: 5.0 Page: 8/12 (30255549/SDS\_CPA\_US/EN)

## Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Slightly toxic after single ingestion. Slightly toxic after short-term skin contact. Relatively nontoxic after short-term inhalation.

Oral

Type of value: LD50 Species: rat (male/female) Value: > 1,000 - < 2,000 mg/kg (OECD Guideline 401)

Inhalation Type of value: LC50 Species: rat (male/female) Value: > 4.8 mg/l (OECD Guideline 403) Exposure time: 4 h An aerosol was tested.

Dermal Type of value: LD50 Species: rat (male/female) Value: > 4,000 mg/kg (OECD Guideline 402)

Assessment other acute effects Assessment of STOT single: Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

The product has not been tested. The statement has been derived from the properties of the individual components.

Irritation / corrosion

Assessment of irritating effects: May cause moderate but temporary irritation to the eyes. May cause slight irritation to the skin.

<u>Skin</u> Species: rabbit Result: non-irritant

<u>Eye</u> Species: rabbit Result: Slightly irritating.

<u>Sensitization</u> Assessment of sensitization: Caused skin sensitization in animal studies.

Skin sensitization test Result: sensitizing

## **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 organtoxicity was observed after repeated administration to animals.

Genetic toxicity

Revision date : 2016/07/21 Version: 5.0 Page: 9/12 (30255549/SDS\_CPA\_US/EN)

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. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

<u>Other Information</u> 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.

## **12. Ecological Information**

## Toxicity

Aquatic toxicity Assessment of aquatic toxicity: Acutely toxic for aquatic organisms.

Aquatic plants EC50 (7 d) 19.2 mg/l, Lemna gibba

<u>Chronic toxicity to fish</u> No observed effect concentration (28 d) > 100 mg/l

<u>Chronic toxicity to aquatic invertebrates</u> No observed effect concentration > 250 mg/l

Toxicity to fish

Information on: 1H-2,1,3-Benzothiadiazin-4(3H)-one, 3-(1-methylethyl)-, 2,2-dioxide LC50 (96 h) > 100 mg/l, Oncorhynchus mykiss

#### Aquatic invertebrates

Information on: 1H-2,1,3-Benzothiadiazin-4(3H)-one, 3-(1-methylethyl)-, 2,2-dioxide EC50 (48 h) > 100 mg/l, Daphnia magna

## Aquatic plants

Revision date : 2016/07/21 Version: 5.0 Page: 10/12 (30255549/SDS\_CPA\_US/EN)

Information on: 1H-2,1,3-Benzothiadiazin-4(3H)-one, 3-(1-methylethyl)-, 2,2-dioxide EC50 (72 h) 33.3 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201) EC50 (7 d) 25.3 mg/l (growth rate), Lemna gibba (OECD guideline 221) EC10 (7 d) 3.9 mg/l (growth rate), Lemna gibba

<u>Assessment of terrestrial toxicity</u> Acutely harmful to terrestrial organisms.

#### Other terrestrial non-mammals

Information on: 1H-2,1,3-Benzothiadiazin-4(3H)-one, 3-(1-methylethyl)-, 2,2-dioxide LD50 1,140 mg/kg, Colinus virginianus Acutely harmful to terrestrial organisms.

Persistence and degradability

Elimination information

Not readily biodegradable.

## **Bioaccumulative potential**

Assessment bioaccumulation potential

Information on: bentazone

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

-----

## Mobility in soil

<u>Assessment transport between environmental compartments</u> The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: bentazone

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: The ecological data given are those of the active ingredient. Do not release untreated into natural waters.

## 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,

Revision date : 2016/07/21 Version: 5.0

Page: 11/12 (30255549/SDS\_CPA\_US/EN)

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

Not classified as a dangerous good under transport regulations

#### Air transport IATA/ICAO

Not classified as a dangerous good under transport regulations

# **15. Regulatory Information**

## **Federal Regulations**

<b>Registration status</b>	s:	
Crop Protection	TSCA, US	released / exempt

Chemical TSCA, US blocked / not listed

EPCRA 311/312 (Hazard categories): Not hazardous;

**CA Prop. 65:** There are no listed chemicals in this product.

## **NFPA Hazard codes:**

Health: 2 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

Revision date : 2016/07/21 Version: 5.0

Page: 12/12 (30255549/SDS\_CPA\_US/EN)

labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

## CAUTION:

KEEP OUT OF REACH OF CHILDREN. KEEP OUT OF REACH OF DOMESTIC ANIMALS. HARMFUL IF SWALLOWED. HARMFUL IF ABSORBED THROUGH SKIN. May cause moderate but temporary irritation to the eyes. Avoid contact with the skin, eyes and clothing.

## 16. Other Information

## SDS Prepared by:

BASF NA Product Regulations SDS Prepared on: 2016/07/21

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