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#### **HUSKIE® COMPLETE HERBICIDE**

 Version 2.0 / USA
 Revision Date: 08/27/2015

 102000020211
 Print Date: 08/28/2015

# SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**Product identifier** 

Trade name HUSKIE® COMPLETE HERBICIDE

Product code (UVP) 79380356

**SDS Number** 102000020211

EPA Registration No. 264-1135

Relevant identified uses of the substance or mixture and uses advised against

**Use** Herbicide

**Restrictions on use**See product label for restrictions.

Information on supplier

**Supplier** Bayer CropScience

2 T.W. Alexander Drive

Research Triangle PK, NC 27709

**United States** 

Responsible Department Email: SDSINFO.BCS-NA@bayer.com

Emergency telephone no.

Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577

Product Information Telephone Number

1-866-99BAYER (1-866-992-2937)

#### **SECTION 2: HAZARDS IDENTIFICATION**

Classification in accordance with regulation HCS 29CFR §1910.1200

Serious eye damage: Category 1 Reproductive toxicity: Category 2 Acute toxicity(Oral): Category 4







Signal word: Danger Hazard statements

Causes serious eye damage.

Suspected of damaging fertility or the unborn child.

Harmful if swallowed.

**Precautionary statements** 



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Wear protective gloves/protective clothing/eye protection/face protection.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER/doctor/physician.

IF exposed or concerned: Get medical advice/ attention.

IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.

Rinse mouth.

Store locked up.

Dispose of contents/container in accordance with local regulation.

#### Other hazards

No other hazards known.

#### **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Hazardous Component Name	CAS-No.	Concentration % by weight
Bromoxynil	1689-84-5	15.77
Pyrasulfotole	365400-11-9	2.82
Thiencarbazone-methyl	317815-83-1	0.45
Isotridecanol, ethoxylated	9043-30-5	15.0
Stearylamine, ethoxylated	26635-92-7	5.00
Tetrapropylene benzene sulfonate, calcium salt	11117-11-6	3.00
Fatty alcohol polyglycol ether		2.00
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	30.0
Naphthalene	91-20-3	0.50

#### **SECTION 4: FIRST AID MEASURES**

#### Description of first aid measures

**General advice** Move out of dangerous area. When possible, have the product container

or label with you when calling a poison control center or doctor or going

for treatment.

**Inhalation** Move to fresh air. If person is not breathing, call 911 or an ambulance,

then give artificial respiration, preferably mouth-to-mouth if possible. Call

a physician or poison control center immediately.

**Skin contact** Take off contaminated clothing and shoes immediately. Wash off

immediately with plenty of water for at least 15 minutes. Call a physician

or poison control center immediately.

**Eye contact** Hold eye open and rinse slowly and gently with water for 15-20 minutes.

Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center



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immediately.

Ingestion Call a physician or poison control center immediately. Rinse out mouth

and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim

unattended.

Most important symptoms and effects, both acute and delayed

**Symptoms** Headache, Nausea, Dizziness, Somnolence

Ingestion may cause gastrointestinal irritation, nausea, vomiting and

diarrhoea.

Aspiration may cause pulmonary oedema and pneumonitis.

Inhalation may provoke the following symptoms: Cough, Shortness of breath, Cyanosis, Fever

Indication of any immediate medical attention and special treatment needed

**Risks** Contains hydrocarbon solvents. May pose an aspiration pneumonia

hazard.

**Treatment** Treat symptomatically. Gastric lavage is not normally required.

However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate. In case of aspiration intubation and bronchial lavage should be considered.

Monitor: kidney, liver and pancreas function. There is no specific antidote. Contraindication: derivatives of adrenaline.

**SECTION 5: FIREFIGHTING MEASURES** 

**Extinguishing media** 

Suitable Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Dangerous gases are evolved in the event of a fire.

Unsuitable High volume water jet

Special hazards arising from the substance or

mixture

Advice for firefighters

Special protective Firefighters should wear NIOSH approved self-contained breathing equipment for fire-fighters

apparatus and full protective clothing.

**Further information** Remove product from areas of fire, or otherwise cool containers with

> water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth.

Flash point > 100 °C

410 °C / 770 °F **Autoignition temperature** Lower explosion limit no data available



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Upper explosion limit no data available

**Explosivity** Not explosive

92/69/EEC, A.14 / OECD 113

#### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

**Precautions** Avoid contact with spilled product or contaminated surfaces. Use

personal protective equipment.

Methods and materials for containment and cleaning up

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder,

universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated

surface thoroughly.

**Reference to other sections** Information regarding safe handling, see section 7.

Information regarding personal protective equipment, see section 8.

Information regarding waste disposal, see section 13.

#### **SECTION 7: HANDLING AND STORAGE**

Precautions for safe handling

**Advice on safe handling** Use only in area provided with appropriate exhaust ventilation. Handle

and open container in a manner as to prevent spillage. For personal

protection see section 8.

Advice on protection against fire and explosion

Keep away from heat and sources of ignition.

**Hygiene measures** When using, do not eat, drink or smoke. Wash hands thoroughly with

soap and water after handling and before eating, drinking, chewing gum,

using tobacco, using the toilet or applying cosmetics.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Store in a place accessible by authorized persons only. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original

container. Keep away from direct sunlight. Protect from freezing.

#### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### **Control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Bromoxynil	1689-84-5	100ug/m3 (ST ESL)	07 2011	TX ESL



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Bromoxynil	1689-84-5	10ug/m3 (AN ESL)	07 2011	TX ESL
Bromoxynil	1689-84-5	0.21 mg/m3 (TWA)		OES BCS*
Pyrasulfotole	365400-11-9	0.3 mg/m3 (TWA)		OES BCS*
Thiencarbazone-methyl	317815-83-1	10 mg/m3 (OES BCS)		OES BCS*
Solvent Naphtha	64742-94-5	2560ug/m3	07 2011	TX ESL
(petroleum), heavy aromatic		(ST ESL)		
Solvent Naphtha	64742-94-5	460ppb	07 2011	TX ESL
(petroleum), heavy aromatic		(ST ESL)		
Solvent Naphtha	64742-94-5	256ug/m3	07 2011	TX ESL
(petroleum), heavy aromatic		(AN ESL)		
Solvent Naphtha	64742-94-5	46ppb	07 2011	TX ESL
(petroleum), heavy aromatic		(AN ESL)		
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	1,600 mg/m3/400 ppm (TWA PEL)	08 2010	US CA OEL
Naphthalene	91-20-3	10 ppm (TWA)	02 2012	ACGIH
Naphthalene	91-20-3	50 mg/m3/10 ppm (REL)	2010	NIOSH
Naphthalene	91-20-3	75 mg/m3/15 ppm (STEL)	2010	NIOSH
Naphthalene	91-20-3	50 mg/m3/10 ppm (PEL)	02 2006	OSHA Z1
Naphthalene	91-20-3	75 mg/m3/15 ppm (STEL)	1989	OSHA Z1A
Naphthalene	91-20-3	50 mg/m3/10 ppm (TWA)	1989	OSHA Z1A
Naphthalene	91-20-3	50 mg/m3/10 ppm (TWA)	06 2008	TN OEL
Naphthalene	91-20-3	75 mg/m3/15 ppm (STEL)	06 2008	TN OEL
Naphthalene	91-20-3	50ug/m3 (AN ESL)	07 2011	TX ESL
Naphthalene	91-20-3	200ug/m3 (ST ESL)	02 2013	TX ESL
Naphthalene	91-20-3	38ppb (ST ESL)	02 2013	TX ESL
Naphthalene	91-20-3	10ppb (AN ESL)	07 2011	TX ESL
Naphthalene	91-20-3	0.5 mg/m3/0.1 ppm (TWA PEL)	10 2014	US CA OEL
Naphthalene	91-20-3	10 ppm (TWA)		OES BCS*

<sup>\*</sup>OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"



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#### **Exposure controls**

#### Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection When respirators are required, select NIOSH approved equipment

based on actual or potential airborne concentrations and in

accordance with the appropriate regulatory standards and/or industry

recommendations.

**Hand protection** Chemical resistant nitrile rubber gloves

**Eye protection** Safety glasses with side-shields

**Skin and body protection** Wear long-sleeved shirt and long pants and shoes plus socks.

General protective measures Follow manufacturer's instructions for cleaning/maintaining PPE. If

no such instructions for washables, use detergent and warm/tepid

water

Keep and wash PPE separately from other laundry.

#### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance dark brown
Physical State Liquid

**Odor** aromatic

Odour Threshold no data available

**pH** 6.0 - 8.0 at 10 % (23 °C) (deionized water)

Vapor Pressure no data available
Vapor Density (Air = 1) no data available

**Density** ca. 1.11 g/cm³ at 20 °C

Evapouration rate no data available

Boiling Point no data available

Melting / Freezing Point no data available

Water solubility emulsifiable

Minimum Ignition Energy not applicable

Decomposition no data available

temperature

Water Control

Partition coefficient: n-

octanol/water

no data available

Viscosity 100 - 200 mPa.s at 20 °C Velocity gradient 20 /s

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50 - 150 mPa.s at 20 °C Velocity gradient 100 /s

Flash point > 100 °C

Autoignition temperature410 °C / 770 °FLower explosion limitno data availableUpper explosion limitno data available

**Explosivity** Not explosive

92/69/EEC, A.14 / OECD 113

#### **SECTION 10: STABILITY AND REACTIVITY**

Reactivity

Thermal decomposition no data available

**Chemical stability** Stable under recommended storage conditions.

Possibility of hazardous

reactions

No hazardous reactions when stored and handled according to

prescribed instructions.

**Conditions to avoid** Extremes of temperature and direct sunlight.

**Incompatible materials** no data available

**Hazardous decomposition** 

products

No decomposition products expected under normal conditions of use.

#### **SECTION 11: TOXICOLOGICAL INFORMATION**

**Exposure routes** Skin contact, Eye contact, Inhalation

**Immediate Effects** 

**Eye** Corrosive - causes irreversible eye damage.

**Skin** Harmful if absorbed through skin.

**Ingestion** May be fatal if swallowed.

Information on toxicological effects

Acute oral toxicity (rat) 300 - 2,000 mg/kg
Acute inhalation toxicity LC50 (rat) > 3,209 mg/m3

Exposure time: 4 h

Highest attainable concentration.

Determined in the form of a respirable aerosol.

During intended and foreseen applications, no respirable aerosol is

formed.

Acute dermal toxicity (rat) > 2,000 mg/kg



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**Skin irritation** Irritating to skin. (rabbit)

**Eye irritation** Corrosive - causes irreversible eye damage. (rabbit)

Sensitisation Non-sensitizing. (mouse)

OECD Test Guideline 429, local lymph node assay (LLNA)

#### Assessment repeated dose toxicity

Bromoxynil caused specific target organ toxicity in experimental animal studies in the following organ(s): liver. The observed effects do not appear to be relevant for humans.

Pyrasulfotole did not cause specific target organ toxicity in experimental animal studies.

Thiencarbazone-methyl did not cause specific target organ toxicity in experimental animal studies.

#### Assessment mutagenicity

Bromoxynil was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Pyrasulfotole was not genotoxic in a battery of in vitro and in vivo tests.

Thiencarbazone-methyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

#### Assessment carcinogenicity

Bromoxynil caused at high dose levels an increased incidence of tumours in mice in the following organ(s): liver. The mechanism of tumour formation is not considered to be relevant to man. Pyrasulfotole caused at high dose levels an increased incidence of tumours in the following organ(s): cornea, urinary bladder. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans.

Thiencarbazone-methyl was not carcinogenic in a lifetime feeding study in rats. Thiencarbazone-methyl caused at high dose levels an increased incidence of tumours in mice in the following organ(s): urinary bladder. The tumours seen with Thiencarbazone-methyl were caused through the chronic irritation due to the presence of bladder stones.

#### **ACGIH**

Naphthalene 91-20-3 Group A3

**NTP** 

Naphthalene 91-20-3

**IARC** 

Naphthalene 91-20-3 Overall evaluation: 2B

**OSHA** 

None.

#### Assessment toxicity to reproduction

Bromoxynil did not cause reproductive toxicity in a two-generation study in rats.

Pyrasulfotole did not cause reproductive toxicity in a two-generation study in rats.

Thiencarbazone-methyl did not cause reproductive toxicity in a two-generation study in rats.

#### Assessment developmental toxicity

Bromoxynil caused a delayed foetal growth, an increased incidence of non-specific malformations.

Bromoxynil caused developmental toxicity only at dose levels toxic to the dams.

Pyrasulfotole did not cause developmental toxicity in rats and rabbits.



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Thiencarbazone-methyl did not cause developmental toxicity in rats and rabbits.

#### **Further information**

Only acute toxicity studies have been performed on the formulated product.

The non-acute information pertains to the active ingredient(s).

#### **SECTION 12: ECOLOGICAL INFORMATION**

**Toxicity to fish** LC50 (Lepomis macrochirus (Bluegill sunfish)) 0.029 mg/l

Exposure time: 96 h

The value mentioned relates to the active ingredient bromoxynil.

Toxicity to aquatic invertebrates

EC50 (Daphnia magna (Water flea)) 0.031 mg/l

Exposure time: 48 h

The value mentioned relates to the active ingredient bromoxynil.

Toxicity to aquatic plants EC50 (Lemna gibba (gibbous duckweed)) 0.073 mg/l

The value mentioned relates to the active ingredient bromoxynil.

IC50 (Lemna gibba (gibbous duckweed)) 0.00131 mg/l

Exposure time: 7 d

The value mentioned relates to the active ingredient thiencarbazone-

methyl.

**Biodegradability** Bromoxynil:

not rapidly biodegradable

Pyrasulfotole:

not rapidly biodegradable Thiencarbazone-methyl: not rapidly biodegradable

Koc Bromoxynil: Koc: 108 - 239

Pyrasulfotole: Koc: 20 - 213 Thiencarbazone-methyl: Koc: 100

**Bioaccumulation** Bromoxynil: Bioconcentration factor (BCF) 230

Does not bioaccumulate.

Pyrasulfotole:

Does not bioaccumulate. Thiencarbazone-methyl: Does not bioaccumulate.

**Mobility in soil** Bromoxynil: Moderately mobile in soils

Pyrasulfotole: Moderately mobile in soils

Thiencarbazone-methyl: Moderately mobile in soils

Additional ecological

information

No ecological testing was carried out on the product. Data are based on

the properties of the individual components.

**Environmental precautions** Do not allow to get into surface water, drains and ground water.

If the product contaminates rivers and lakes or drains inform respective

authorities.

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#### **SECTION 13: DISPOSAL CONSIDERATIONS**

Waste treatment methods

Product It is best to use all of the product in accordance with label directions. If it

is necessary to dispose of unused product, please follow container label

instructions and applicable local guidelines.

In accordance with current regulations and, if necessary, after

consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.

**Contaminated packaging** Triple rinse containers.

Add washings to sprayer at time of filling.

Rinsed packaging may be acceptable for landfill, otherwise incineration

will be required in accordance with local regulations. Dispose of empty and cleaned packaging safely. Follow advice on product label and/or leaflet.

**RCRA Information** Characterization and proper disposal of this material as a special or

hazardous waste is dependent upon Federal, State and local laws and

are the user's responsibility. RCRA classification may apply.

#### **SECTION 14: TRANSPORT INFORMATION**

49CFR

UN number 3082
Class 9
Packaging group III

Marine pollutant Marine pollutant

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID,

N.O.S.

(BROMOXYNIL, THIENCARBAZONE-METHYL, NAPHTHALENE)

RQ Reportable Quantity is reached with 20,000 lb of product.

**IMDG** 

UN number 3082
Class 9
Packaging group III
Marine pollutant YES

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(BROMOXYNIL, THIENCARBAZONE-METHYL SOLUTION)

**IATA** 

UN number 3082
Class 9
Packaging group III
Environm. Hazardous Mark YES

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Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(BROMOXYNIL, THIENCARBAZONE-METHYL SOLUTION)

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

#### **SECTION 15: REGULATORY INFORMATION**

**EPA Registration No.** 264-1135

**US Federal Regulations** 

**TSCA list** 

Isotridecanol, ethoxylated 9043-30-5 Stearylamine, ethoxylated 26635-92-7 Solvent Naphtha (petroleum), heavy 64742-94-5

aromatic

Naphthalene 91-20-3

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

Bromoxynil 1689-84-5 1.0%

Naphthalene 91-20-3

**US States Regulatory Reporting** 

CA Prop65

This product contains a chemical known to the State of California to cause cancer.

Naphthalene 91-20-3

This product contains a chemical known to the State of California to cause birth defects or other

reproductive harm.

Bromoxynil 1689-84-5 Developmental toxin.

**US State Right-To-Know Ingredients** 

Bromoxynil 1689-84-5 CA, NJ, RI

Naphthalene 91-20-3 CA, CT, IL, MN, NJ, RI

**Canadian Regulations** 

**Canadian Domestic Substance List** 

None.

**Environmental** 

**CERCLA** 

Naphthalene 91-20-3 100 lbs

**Clean Water Section 307 Priority Pollutants** 

Naphthalene 91-20-3

Safe Drinking Water Act Maximum Contaminant Levels

Naphthalene 91-20-3



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#### **EPA/FIFRA Information:**

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 for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

Signal word: Danger!

**Hazard statements:** Corrosive - causes irreversible eye damage.

May be fatal if swallowed.

Harmful if absorbed through skin.

Prolonged or frequently repeated skin contact may cause allergic

reactions in some individuals.

#### **SECTION 16: OTHER INFORMATION**

#### Abbreviations and acronyms

49CFR Code of Federal Regulations, Title 49
ACGIH US. ACGIH Threshold Limit Values
CAS-Nr. Chemical Abstracts Service number

EINECS European inventory of existing commercial substances

ELINCS European list of notified chemical substances

IARC US. IARC Monographs on Occupational Exposures to Chemical Agents

IATA International Air Transport Association
IMDG International Maritime Dangerous Goods

N.O.S. Not otherwise specified

NTP US. National Toxicology Program (NTP) Report on Carcinogens OECD Organization for Economic Co-operation and Development

TDG Transportation of Dangerous Goods

TWA Time weighted average

UN United Nations

WHO World health organisation

#### NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 1 Instability - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 1 Flammability - 1 Physical Hazard - 0 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Revised according to the current OSHA Hazard Communication Standard

(29CFR1910.1200)

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This information is provided in good faith but without express or implied warranty. The customer assumes



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all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.