



ATTRIBUTE COMBI

Version 9 / EU
1020000115642/12
Revision Date: 28.01.2020
Print Date: 05.10.2020**Signal word:** Warning**Hazard statements**

H319 Causes serious eye irritation.
 H411 Toxic to aquatic life with long lasting effects.
 EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statements

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P391 Collect spillage.
 P501 Dispose of contents/container in accordance with local regulation.

2.3 Other hazards

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.2 Mixtures****Chemical nature**

Water dispersible granules (WG)
 contains Mesosulfuron-methyl 4,5 %, Propoxycarbazone-Sodium 6,8 %, Mefenpyr-Diethyl 9 %

Hazardous components

Hazard statements according to Regulation (EC) No. 1272/2008

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification	Conc. [%]
		REGULATION (EC) No 1272/2008	
Mesosulfuron-methyl	208465-21-8	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	4,5
Propoxycarbazone-sodium	181274-15-7	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	6,75
Mefenpyr-diethyl	135590-91-9	Aquatic Chronic 2, H411	9,0
Sulfonated aromatic polymer, sodium salt	68425-94-5	Eye Irrit. 2, H319	> 1 - < 20
Solvent Naphtha (petroleum), heavy aromatic, <1% naphthalene	64742-94-5 265-198-5 01-2119451097-39-xxxx	Asp. Tox. 1, H304 Aquatic Chronic 2, H411	> 1 - < 20
Synthetic amorphous silica	112926-00-8 231-545-4 01-2119379499-16-xxxx	Not classified	> 1 - < 20
Kaolin	1332-58-7 310-194-1	Not classified	> 1 - < 20



ATTRIBUTE COMBI

Version 9 / EU
1020000115643/12
Revision Date: 28.01.2020
Print Date: 05.10.2020

Perlite	93763-70-3	Not classified	> 1 – < 10
Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts	68953-96-8 273-234-6 01-2119964467-24-xxxx	Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411	> 1 – < 5

Further information

Mesosulfuron-methyl	208465-21-8	M-Factor: 100 (acute), 100 (chronic)
Propoxycarbazone-sodium	181274-15-7	M-Factor: 10 (acute), 10 (chronic)

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice	Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.
Inhalation	Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.
Skin contact	Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. Call a physician or poison control center immediately.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
Ingestion	Do NOT induce vomiting. Call a physician or poison control center immediately. Risk of product entering the lungs on vomiting after ingestion. Rinse mouth.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	If large amounts are ingested, the following symptoms may occur: 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 Symptoms and hazards refer to the solvent.
-----------------	--

4.3 Indication of any immediate medical attention and special treatment needed

Risks	Contains hydrocarbon solvents. May pose an aspiration pneumonia hazard.
--------------	---



ATTRIBUTE COMBI

Version 9 / EU
102000011564

4/12
Revision Date: 28.01.2020
Print Date: 05.10.2020

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

5.1 Extinguishing media

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

Unsuitable High volume water jet

5.2 Special hazards arising from the substance or mixture In the event of fire the following may be released: Hydrogen cyanide (hydrocyanic acid), Hydrogen chloride (HCl), Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x), Sulphur oxides

5.3 Advice for firefighters

Special protective equipment for firefighters In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.

Further information Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Precautions Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

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

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up Use mechanical handling equipment. Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal.

6.4 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

7.1 Precautions for safe handling

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



ATTRIBUTE COMBI

Version 9 / EU
102000011564

5/12

Revision Date: 28.01.2020
Print Date: 05.10.2020

Advice on protection against fire and explosion	No special precautions required.
Hygiene measures	Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).
7.2 Conditions for safe storage, including any incompatibilities	
Requirements for storage areas and containers	Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. Store in a place accessible by authorized persons only. Keep away from direct sunlight. Protect from frost.
Advice on common storage	Keep away from food, drink and animal feedingstuffs.
Suitable materials	Aluminium composite film (min. 0,007 mm Aluminium)
7.3 Specific end use(s)	Refer to the label and/or leaflet.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Mesosulfuron-methyl	208465-21-8	10 mg/m ³ (TWA)		OES BCS*
Propoxycarbazone-sodium	181274-15-7	10 mg/m ³ (TWA)		OES BCS*
Mefenpyr-diethyl	135590-91-9	10 mg/m ³ (TWA)		OES BCS*

*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

8.2 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	Wear respirator with a particle filter mask (protection factor 4) conforming to European norm EN149FFP1 or equivalent. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.
Hand protection	Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

**ATTRIBUTE COMBI**Version 9 / EU
1020000115647/12
Revision Date: 28.01.2020
Print Date: 05.10.2020

	Propoxycarbazone-sodium: log Pow: -1,55 Mefenpyr-diethyl: log Pow: 3,83 (21 °C) Phenylsulfonate Ca: log Pow: 4,6
Viscosity, kinematic	No data available
Oxidizing properties	No oxidizing properties
Explosivity	Not explosive
Dust content	nearly dust-free
9.2 Other information	Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY**10.1 Reactivity****Thermal decomposition** from 240 °C, Heating rate: 5 K/min, Decomposition energy: 158 kJ/kg**10.2 Chemical stability** Stable under recommended storage conditions.**10.3 Possibility of hazardous reactions** No hazardous reactions when stored and handled according to prescribed instructions.**10.4 Conditions to avoid** Extremes of temperature and direct sunlight.**10.5 Incompatible materials** Store only in the original container.**10.6 Hazardous decomposition products** No decomposition products expected under normal conditions of use.**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****Acute oral toxicity** LD50 (Rat) > 2.000 mg/kg**Acute inhalation toxicity** LC50 (Rat) > 0,995 mg/l
Exposure time: 4 h
Determined in the form of a respirable aerosol.
Highest attainable concentration.
No deaths**Acute dermal toxicity** LD50 (Rat) > 2.000 mg/kg**Skin corrosion/irritation** No skin irritation (Rabbit)**Serious eye damage/eye irritation** Irritating to eyes. (Rabbit)**Respiratory or skin sensitisation** Non-sensitizing. (Guinea pig)
OECD Test Guideline 406, Buehler test**Assessment STOT Specific target organ toxicity – single exposure**

Mesosulfuron-methyl: Based on available data, the classification criteria are not met.

**ATTRIBUTE COMBI**Version 9 / EU
1020000115648/12
Revision Date: 28.01.2020
Print Date: 05.10.2020

Propoxycarbazone-sodium: Based on available data, the classification criteria are not met.

Mefenpyr-diethyl: Based on available data, the classification criteria are not met.

Assessment STOT Specific target organ toxicity – repeated exposure

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

Propoxycarbazone-sodium did not cause specific target organ toxicity in experimental animal studies.

Mefenpyr-diethyl did not cause specific target organ toxicity in experimental animal studies.

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

Assessment mutagenicity

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

Propoxycarbazone-sodium was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Mefenpyr-diethyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Phenylsulfonate Ca was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Mesosulfuron-methyl was not carcinogenic in lifetime feeding studies in rats and mice.

Propoxycarbazone-sodium was not carcinogenic in lifetime feeding studies in rats and mice.

Mefenpyr-diethyl was not carcinogenic in lifetime feeding studies in rats and mice.

Phenylsulfonate Ca is not considered carcinogenic.

Assessment toxicity to reproduction

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

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

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

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

Assessment developmental toxicity

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

Propoxycarbazone-sodium did not cause developmental toxicity in rats. Propoxycarbazone-sodium caused developmental toxicity in rabbits only at dose levels toxic to the dams. The developmental effects seen with Propoxycarbazone-sodium are related to maternal toxicity.

Mefenpyr-diethyl caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Mefenpyr-diethyl are related to maternal toxicity.

Phenylsulfonate Ca did not cause developmental toxicity in rats and rabbits.

Aspiration hazard

Based on available data, the classification criteria are not met.

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)) 7,6 mg/l
Exposure time: 96 h

Toxicity to aquatic invertebrates EC50 (Daphnia magna (Water flea)) 8,8 mg/l
Exposure time: 48 h

Toxicity to aquatic plants EC50 (Raphidocelis subcapitata (freshwater green alga)) 3,9 mg/l
Exposure time: 96 h

12.2 Persistence and degradability



ATTRIBUTE COMBI

Version 9 / EU
102000011564

9/12
Revision Date: 28.01.2020
Print Date: 05.10.2020

Biodegradability Mesosulfuron-methyl:
Not rapidly biodegradable
Propoxycarbazone-sodium:
Not rapidly biodegradable
Mefenpyr-diethyl:
Not rapidly biodegradable
Phenylsulfonate Ca:
Not rapidly biodegradable

Koc Mesosulfuron-methyl: Koc: 92
Propoxycarbazone-sodium: Koc: 29
Mefenpyr-diethyl: Koc: 625
Phenylsulfonate Ca: Koc: 2,74

12.3 Bioaccumulative potential

Bioaccumulation Mesosulfuron-methyl:
Does not bioaccumulate.
Propoxycarbazone-sodium:
Does not bioaccumulate.
Mefenpyr-diethyl: Bioconcentration factor (BCF) 232
Does not bioaccumulate.
Phenylsulfonate Ca: Bioconcentration factor (BCF) 3,16
Does not bioaccumulate.

12.4 Mobility in soil

Mobility in soil Mesosulfuron-methyl: Moderately mobile in soils
Propoxycarbazone-sodium: Mobile in soils
Mefenpyr-diethyl: Slightly mobile in soils
Phenylsulfonate Ca: Highly mobile in soils

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment Mesosulfuron-methyl: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
Propoxycarbazone-sodium: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
Mefenpyr-diethyl: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
Phenylsulfonate Ca: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

12.6 Other adverse effects

Additional ecological information No other effects to be mentioned.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods



ATTRIBUTE COMBI

Version 9 / EU
102000011564

10/12
Revision Date: 28.01.2020
Print Date: 05.10.2020

Product	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	Not completely emptied packagings should be disposed of as hazardous waste.
Waste key for the unused product	02 01 08* agrochemical waste containing hazardous substances

SECTION 14: TRANSPORT INFORMATION

ADR/RID/ADN

14.1 UN number	3077
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PROPOXYCARBAZONE-SODIUM, SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC MIXTURE)
14.3 Transport hazard class(es)	9
14.4 Packaging Group	III
14.5 Environm. Hazardous Mark	YES
Hazard no.	90

This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

IMDG

14.1 UN number	3077
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PROPOXYCARBAZONE-SODIUM, SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC MIXTURE)
14.3 Transport hazard class(es)	9
14.4 Packaging Group	III
14.5 Marine pollutant	YES

IATA

14.1 UN number	3077
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PROPOXYCARBAZONE-SODIUM, SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC MIXTURE)
14.3 Transport hazard class(es)	9
14.4 Packaging Group	III
14.5 Environm. Hazardous Mark	YES

14.6 Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

No transport in bulk according to the IBC Code.



ATTRIBUTE COMBI

Version 9 / EU
102000011564

11/12
Revision Date: 28.01.2020
Print Date: 05.10.2020

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Further information

WHO-classification: III (Slightly hazardous)

15.2 Chemical safety assessment

A chemical safety assessment is not required.

SECTION 16: OTHER INFORMATION

Text of the hazard statements mentioned in Section 3

H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
Conc.	Concentration
EC-No.	European community number
ECx	Effective concentration to x %
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LCx	Lethal concentration to x %
LDx	Lethal dose to x %
LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.	Not otherwise specified
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
TWA	Time weighted average
UN	United Nations



ATTRIBUTE COMBI

Version 9 / EU
102000011564

12/12
Revision Date: 28.01.2020
Print Date: 05.10.2020

WHO World health organisation

The information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 2015/830 amending Regulation (EU) No 1907/2006 and any subsequent amendments. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

Reason for Revision: The following sections have been revised: Section 2: Hazards Identification. Section 3: Composition / Information on Ingredients. Section 7: Handling and Storage. Section 8: Exposure Controls / Personal Protection. Safety Data Sheet according to Regulation (EU) No. 2015/830.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.