This Safety Data Sheet adheres to the standards and regulatory requirements of the Czech Republic and may not meet the regulatory requirements in other countries.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name	:	TRENER®
Synonyms	:	B10048183 DPX-66037 50WG

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

Use of the Substance/Mixture	:	Herbicide

1.3. Details of the supplier of the safety data sheet

Company	:	FMC Agro Czeska Republica, spol sro Na Maninách 876/7 170 00 Praha 7 Czech Republic
Telephone	:	+420 257 414 111
Telefax	:	+420 544 232 060
E-mail address	:	sds-support@che.dupont.com

1.4. Emergency telephone number

+(44)-870-8200418 (CHEMTREC)

+420 224 919 293 or +420 224 915 402 (Czech Republic Toxicological information centre (IST))

Poison Centres may only possess information required for products in accordance with Regulation (EC) No 1272/2008 and national legislation.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Carcinogenicity, Category 2	H351: Suspected of causing cancer.
Acute aquatic toxicity, Category 1	H400: Very toxic to aquatic life.
Chronic aquatic toxicity, Category 1	H410: Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Warning

H351	Suspected of causing cancer.
H410	Very toxic to aquatic life with long lasting effects.
Special labelling of certain substances and mixtures	EUH401: To avoid risks to human health and the environment, comply with the instructions for use.,
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P281	Use personal protective equipment as required.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P391	Collect spillage.
P501	Dispose of contents to an approved incineration plant in accordance with local, regional and national legislations.
P501	Dispose of container to a waste disposal plant in accordance with local, regional and national legislations.
SP 1	Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

2.3. Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Registration number	Classification according to Regulation (EU) 1272/2008 (CLP)	Concentration (% w/w)
Triflusulfuron-methyl (CAS-No.126535-15-7) (M-Factor : 100[Acute] 10[Chronic])		
	Carc. 2; H351 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	50 %

The above products are compliant to REACH registration obligations; Registration number(s) may not be provided because substance(s) are exempted, not yet registered under REACH or are registered under another regulatory process (biocide uses, plant protection products), etc.

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	:	Never give anything by mouth to an unconscious person.
	:	Toxicological Information Center – Clinic of Occupational Medicine of the Faculty General Hospital (=VFN)) and the 1st Medical Faculty of the Charles University, Na bojišti 1, 128 08 Praha 2, tel. 224 919 293 or 224 915 402, email: tis@vfn.cz
Inhalation	:	Move to fresh air. Consult a physician after significant exposure. Artificial respiration and/or oxygen may be necessary.
Skin contact	:	Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. In the case of skin irritation or allergic reactions see a physician. Wash contaminated clothing before re-use.
Eye contact	:	If easy to do, remove contact lens, if worn. Hold eye open and rinse slowly and gently with water for 15-20 minutes. If eye irritation persists, consult a specialist.
Ingestion	:	Obtain medical attention. DO NOT induce vomiting unless directed to do so by a physician or poison control center. If victim is conscious: Rinse mouth with water.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	:	No cases of human intoxication are known and the symptoms of experimental intoxication are not known.

4.3. Indication of any immediate medical attention and special treatment needed

Treatment	:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	Water spray, Dry chemical, Foam, Carbon dioxide (CO2)
Extinguishing media which shall not be used for safety reasons	:	High volume water jet, (contamination risk)

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting	:	Hazardous decomposition products formed under fire conditions. Carbon dioxide (CO2) Nitrogen oxides (NOx)

5.3. Advice for firefighters

Special protective equipment	:	Wear full protective clothing and self-contained breathing apparatus.

for firefighters

Further information : Prevent fire extinguishing water from contaminating surface water or the ground water system. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

: (on small fires) If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers/tanks with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Control access to area. Keep people away from and upwind of spill/leak. Avoid dust formation. Avoid breathing dust. Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.

6.2. Environmental precautions

Environmental precautions : Prevent further leakage or spillage if safe to do so. Use appropriate container to avoid environmental contamination. Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. If the spill area is porous, the contaminated material must be collected for subsequent treatment or disposal. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up : Clean-up methods - small spillage Sweep up or vacuum up spillage and collect in suitable container for disposal.
Clean-up methods - large spillage Avoid dust formation. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).
If spill area is on ground near valuable plants or trees, remove 5 cm of top soil after initial clean-up.

Other information : Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

6.4. Reference to other sections

For personal protection see section 8., For disposal instructions see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling : Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use.

Use only according to our recommendations. Use only clean equipment. Avoid contact with skin, eyes and clothing. Do not breathe dust or spray mist. Wear personal protective equipment. For personal protection see section 8. Prepare the working solution as given on the label(s) and/or the user instructions. Use prepared working solution as soon as possible - Do not store. Provide appropriate exhaust ventilation at places where dust is formed.

Advice on protection against fire and explosion : Keep away from heat and sources of ignition. Avoid dust formation in confined areas. Under severe dusting conditions, this material may form explosive mixtures in air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in a cool, dry place. Keep out of the reach of children.

Advice on common storage : No special restrictions on storage with other products.

Storage temperature : < 40 °C

Other data : Stable under recommended storage conditions.

7.3. Specific end use(s)

Plant protection products subject to Regulation (EC) No 1107/2009.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

If sub-section is empty then no values are applicable.

8.2. Exposure controls

Engineering measures : Ensure adequate ventilation, especially in confined areas. Provide for appropriate exhaust ventilation and dust collection at machinery. Use sufficient ventilation to keep employee exposure below recommended limits.

Eye protection : Safety glasses with side-shields conforming to EN166

Hand protection : Material: Nitrile rubber
Glove thickness: 0,3 mm
Glove length: Gauntlets of 35 cm long or longer.
Protection index: Class 6
Wearing time: > 480 min
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Gloves must be inspected prior to use. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. 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. The suitability for a specific workplace should be discussed with the producers of the protective gloves. Gauntlets shorter than 35 cm long shall be worn under the combination sleeve. Gauntlets of 35 cm long or longer shall

be worn over the combination sleeve. Before removing gloves clean them with soap and water.

Skin and body protection	:	Manufacturing and processing work: Full protective clothing Type 5 + 6 (EN ISO 13982-2 / EN 13034) Mixer and loaders must wear: Full protective clothing Type 5 + 6 (EN ISO 13982-2 / EN 13034) Rubber apron Nitrile rubber boots (EN 13832-3 / EN ISO 20345). Spray application - outdoor: Tractor / sprayer with hood: No personal body protection normally required. Tractor / sprayer without hood: Low application: Full protective clothing Type 4 (EN 14605) Nitrile rubber boots (EN 13832-3 / EN ISO 20345). When exceptional circumstances would require an access to the treated area before the end of re-entry periods, wear full protective clothing Type 6 (EN 13034), nitrile rubber gloves class 2 (EN 374) and nitrile rubber boots (EN 13832-3 / EN ISO 20345). To optimize the ergonomy it may be recommended to use cotton underwear when wearing some fabrics. Take advice from supplier. Garment materials that are resistant to both water vapour and air will maximise wearing comfort. Materials should be robust to maintain the integrity and barrier in use. The permeation resistance of the fabric must be verified independently of the « type » protection recommended, to ensure an appropriate performance level of the material adequate to the corresponding agent and type of exposure.
Protective measures	:	The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. All chemical protective clothing should be visually inspected prior to use. Clothing and gloves should be replaced in case of chemical or physical damage or if contaminated. Only protected handlers may be in the area during application.
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing. Keep working clothes separately. Contaminated work clothing should not be allowed out of the workplace. For environmental protection remove and wash all contaminated protective equipment before re-use. Remove clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing. Dispose of rinse water in accordance with local and national regulations. Wash hands before breaks and at the end of workday.
Respiratory protection	:	Manufacturing and processing work: Half mask with a particle filter FFP1 (EN149) Mixer and loaders must wear: Half mask with a particle filter FFP1 (EN149) Spray application - outdoor: Tractor / sprayer with hood: No personal respiratory protective equipment normally required. Tractor / sprayer without hood: Low application: Half mask with a particle filter P1 (EN 143). Backpack / knapsack sprayer: Low application: Half mask with a particle filter P1 (EN 143).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	:	solid, granules

Colour	: brown
Odour	: none
Odour Threshold	: not determined
pH	: 8,3 at 10 g/l (20 °C)
Melting point/range	: Not available for this mixture.
Flash point	: Not applicable
Flammability (solid, gas)	: Does not sustain combustion.
Thermal decomposition	: Not available for this mixture.
Auto-ignition temperature	: not auto-flammable
Oxidizing properties	: The product is not oxidizing.
Explosive properties	: Not explosive
Lower explosion limit/ lower flammability limit	: Not available for this mixture.
Upper explosion limit/ upper flammability limit	: Not available for this mixture.
Bulk density	: 790 kg/m3 , packed
Water solubility	: dispersible
Partition coefficient: n-octanol/water	: Not applicable
Viscosity, kinematic	: Not applicable
Evaporation rate	: Not available for this mixture.

Minimum ignition energy : 250 - 500 mJ

9.2. Other information

Phys.-chem./other information : No other data to be specially mentioned.

SECTION 10: Stability and reactivity

10.1. Reactivity : No hazards to be specially mentioned.

10.2. Chemical stability : The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use. Polymerization will not occur. No decomposition if stored and applied as directed.

10.4. Conditions to avoid : Exposure to moisture Decomposes slowly on exposure to water. To avoid thermal decomposition, do not overheat. Under severe dusting conditions, this material may form explosive mixtures in air.

10.5. Incompatible materials : No materials to be especially mentioned.

10.6. Hazardous decomposition products : Hydrogen fluoride
Sulphur oxides

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity

LD50 / Rat : > 5 000 mg/kg
Method: OECD Test Guideline 401
(Data on the product itself) Information source: Internal study report

Acute inhalation toxicity

LC50 / 4 h Rat : > 6,1 mg/l
Method: OECD Test Guideline 403
(Data on the product itself) Information source: Internal study report

Acute dermal toxicity

LD50 / Rabbit : > 2 000 mg/kg
Method: OECD Test Guideline 402
(Data on the product itself) Information source: Internal study report

Skin irritation

Rabbit
Result: No skin irritation
Method: OECD Test Guideline 404
(Data on the product itself) Information source: Internal study report

Eye irritation

Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405
(Data on the product itself) Information source: Internal study report

Sensitisation

Guinea pig Maximisation Test
Result: Animal test did not cause sensitization by skin contact.
Method: OECD Test Guideline 406
(Data on the product itself)

Repeated dose toxicity

- Triflusulfuron-methyl
  The following effects occurred at levels of exposure that significantly exceed those expected under labeled usage conditions.

  Oral - feed multiple species
  Reduced body weight gain, Liver effects, Abnormal decrease in number of red blood cells

Mutagenicity assessment

- Triflusulfuron-methyl
  Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Animal testing did not show any mutagenic effects.

Carcinogenicity assessment

- Triflusulfuron-methyl
  Suspected human carcinogens An increased incidence of tumours was observed in laboratory animals.
  Target(s): Testes Liver

  The observed tumors do not appear to be relevant for men.

Toxicity to reproduction assessment

- Triflusulfuron-methyl
  No toxicity to reproduction Animal testing did not show any effects on fertility.

Assessment teratogenicity

- Triflusulfuron-methyl
  Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.

STOT - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

The mixture does not have properties associated with aspiration hazard potential.

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish

static test / LC50 / 96 h / Oncorhynchus mykiss (rainbow trout): 150 mg/l
Method: OECD Test Guideline 203
(Data on the product itself) Information source: Internal study report

Toxicity to aquatic plants

ErC50 / 72 h / Pseudokirchneriella subcapitata (green algae): 0,430 mg/l
Method: OECD Test Guideline 201
(Data on the product itself) Information source: Internal study report

EC50 / 336 h / Lemna gibba (duckweed): 0,0043 mg/l
Method: ASTM E 1415-91
(Data on the product itself) Information source: Internal study report

Toxicity to aquatic invertebrates

EC50 / 48 h / Daphnia (water flea): 1 200 mg/l
Method: OECD Test Guideline 202
(Data on the product itself) Information source: Internal study report

Toxicity to soil dwelling organisms

LC50 / 14 d / Eisenia fetida (earthworms): > 1 000 mg/kg
Method: OECD Test Guideline 207
(Data on the product itself) Information source: Internal study report

Toxicity to other organisms

LD50 / 48 h / Apis mellifera (bees): > 100 µ/b
Method: OECD Test Guideline 213
Oral Information source: Internal study report

LD50 / 48 h / Apis mellifera (bees): > 100 µ/b
Method: OECD Test Guideline 214
Contact Information source: Internal study report

Chronic toxicity to fish

- Triflusulfuron-methyl
  NOEC / 21 d / Oncorhynchus mykiss (rainbow trout): > 210 mg/l
  Method: OECD Test Guideline 204
  Information source: Internal study report

Chronic toxicity to aquatic Invertebrates

- Triflusulfuron-methyl
  NOEC / 21 d / Daphnia magna (Water flea): 11 mg/l

Method: OECD Test Guideline 202
Information source: Internal study report

12.2. Persistence and degradability

Biodegradability

Not readily biodegradable. Estimation based on data obtained on active ingredient.

12.3. Bioaccumulative potential

Bioaccumulation

Does not bioaccumulate. Estimation based on data obtained on active ingredient.

12.4. Mobility in soil

Mobility in soil

Potentially mobile, but the leaching potential is mitigated by rapid degradation.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment
This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT). / This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

12.6. Other adverse effects

Additional ecological information

No other ecological effects to be specially mentioned

See product label for additional application instructions relating to environmental precautions.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product	:	In accordance with local and national regulations. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not contaminate ponds, waterways or ditches with chemical or used container.
Contaminated packaging	:	Do not re-use empty containers.

SECTION 14: Transport information

ADR

14.1. UN number:	3077
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Triflusulfuron methyl)

14.3. Transport hazard class(es): 9
14.4. Packing group: III
14.5. Environmental hazards: Environmentally hazardous

14.6. Special precautions for user:
Tunnel restriction code: (E)

IATA_C
14.1. UN number: 3077
14.2. UN proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Triflusulfuron methyl)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
14.5. Environmental hazards : For further information see Section 12.

14.6. Special precautions for user:
FMC internal recommendations and transport guidance: ICAO / IATA cargo aircraft only

IMDG
14.1. UN number: 3077
14.2. UN proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Triflusulfuron methyl)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
14.5. Environmental hazards : Marine pollutant

14.6. Special precautions for user:
No special precautions required.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable

SECTION 15: Regulatory information

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

Other regulations : The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.Take note of Dir 94/33/EC on the protection of young people at work.Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers.Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.Take note of Directive 96/82/EC on the control of major-accident hazards involving dangerous substances.Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values.

15.2. Chemical safety assessment

A Chemical Safety Assessment is not required for this/these products
The mixture is registered as a plant protection product under Regulation (EC) No. 1107/2009.
Refer to the label for exposure assessment information.

SECTION 16: Other information

Full text of H-Statements referred to under section 3.

H351	Suspected of causing cancer.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Other information	professional use

Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate
CAS-No.	Chemical Abstracts Service number
CLP	Classification, Labelling and Packaging
EbC50	Concentration at which 50% reduction of biomass is observed
EC50	Median effective concentration
EN	European Norm
EPA	Environmental Protection Agency
ErC50	Concentration at which a 50% inhibition of growth rate is observed
EyC50	Concentration at which 50 % inhibition of yield is observed
IATA_C	International Air Transport Association (Cargo)
IBC	International Bulk Chemical Code
ICAO	International Civil Aviation Organization
ISO	International Standard Organization
IMDG	International Maritime Dangerous Goods
LC50	Median Lethal Concentration
LD50	Median Lethal Dose
LOEC	Lowest Observed Effect Concentration
LOEL	Lowest observed effect level
MARPOL	International Convention for the Prevention of Marine Pollution from Ships
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No observed adverse effect level
NOEC	No Observed Effect Concentration
NOEL	No Observed Effect Level
OECD	Organisation for Economic Co-operation and Development
OPPTS	Office of Prevention, Pesticides and Toxic Substances
PBT	Persistent, Bioaccumulative and Toxic
STEL	Short term exposure limit
TWA	Time Weighted Average (TWA):
vPvB	very Persistent and very Bioaccumulative

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The above information relates only to the specific material(s) designated herein and may not be valid for such material(s) used in combination with any other materials or in any process or if the material is altered or processed, unless specified in the text.