This Safety Data Sheet adheres to the standards and regulatory requirements of Great Britain 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 : PRESITE MAX® SX®
Synonyms : B11944358
DPX-KAZ22 45.7SG

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 : F M C A g r o L i m i t e d
Rectors Lane, Pentre, Deeside, Flintshire CH5 2DH
United Kingdom
E-mail address : SDS.Ronland@fmc.com

Medical emergencies:
Austria: +43 1 406 43 43
Belgium: +32 70 245 245
Bulgaria: +359 2 9154 409
Cyprus: 1401
Czech Republic: +420 224 919 293
+420 224 915 402
Denmark: +45 82 12 12 12
France: +33 (0) 1 45 42 59 59
Finland: +358 9 471 977
Greece: 30 210 77 93 777
Hungary: +36 80 20 11 99
Ireland (Republic): +352 1 837 9964
Italy: +39 02 6610 1029
Lithuania: +370 523 62052
+370 687 53378
Luxembourg: +352 8002 5500
Netherlands: +31 30 274 88 88
Norway: +47 22 591300
Poland: +48 22 619 66 54
+48 22 619 08 97
Portugal: 808 250 143 (in Portugal only)
+351 21 330 3284
Romania: +40 21318 3606
Slovakia: +421 2 54 77 4 166
Slovenia: +386 41 650 500
Spain: +34 91 562 04 20
Sweden: +46 08-331231
112
Switzerland: 145
UK: 111, Scotland: 08454 242424

For fire, leak, spill or other accident emergencies:
(CHEMTREC Help Centre - Collect)
Dialing from the UK and Northern Ireland:
0870 820 0418
Dialing from the Republic of Ireland: 01 901 4670

1.4. Emergency telephone number

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

Acute aquatic toxicity, Category 1	H400: Very toxic to aquatic life.
Chronic aquatic toxicity,	H410: Very toxic to aquatic life with long lasting effects.

Category 1

2.2. Label elements

Warning

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.
P273 P391 P501	Avoid release to the environment Collect spillage. Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.
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)
Thifensulfuron methyl (CAS-No.79277-27-3)		
	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	42.9 %

Metsulfuron methyl (CAS-No.74223-64-6)
(M-Factor : 1,000[Acute] 1,000[Chronic])

	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	2.9 %

Sodium carbonate (CAS-No.497-19-8) (EC-No.207-838-8)

01-2119485498-19	Eye Irrit. 2; H319	>= 10 - < 15 %

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. For specialist advice physicians should contact the National Poisons Information Service: Tel. 111 for England and Wales and Tel. 08454 24 24 24 for Scotland.

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 information available.

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, Foam, Dry chemical, Carbon dioxide (CO2)

Extinguishing media which : High volume water jet, (contamination risk)

shall not be used for safety reasons

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 for firefighters	:	Wear full protective clothing and self-contained breathing apparatus.
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 protection against fire and explosion	:	Keep away from heat and sources of ignition. Avoid dust formation in confined areas. During processing, dust may form explosive mixture in air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Keep away from food, drink and animal feedingstuffs. Store in a place accessible by authorized persons only. Store in original container. Keep in properly labelled containers. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.
Advice on common storage	:	No special restrictions on storage with other products.
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.
Eye protection	:	Safety glasses with side-shields conforming to EN166
Hand protection	:	Material: Nitrile rubber Glove thickness: 0.3 mm Glove length: Standard glove type. 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. 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. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case. The exact break through time can be obtained from the protective glove producer and this has to be observed. Gloves must be inspected prior to use. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Gauntlets shorter than 35 cm long shall be worn under 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 (EN 13982-2) 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 6 (EN 13034) Nitrile rubber boots (EN 13832-3 / EN ISO 20345). Backpack / knapsack sprayer: Full protective clothing Type 4 (EN 14605) Nitrile rubber boots (EN 13832-3 / EN ISO 20345). 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. 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. 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).
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. Wash hands and face before breaks and immediately after handling the product. When using do not eat, drink or smoke. Keep away from food, drink and animal feedingstuffs. 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.
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: Low application: Tractor / sprayer with hood: No personal respiratory protective equipment normally required. Tractor / sprayer without hood: Half mask with a particle filter FFP1 (EN149) Backpack / knapsack sprayer: Half mask with a particle filter FFP1 (EN149)

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	: solid, granular
Colour	: brown, light brown
Odour	: slight
Odour Threshold	: not determined
pH	: 9.2 at 10 g/l , Method: CIPAC MT 75.3
Melting point/range	: Not available for this mixture.
Flash point	: Not applicable
Flammability (solid, gas)	: The product is not flammable.
Thermal decomposition	: Not available for this mixture.
Auto-ignition temperature	: Not available for this mixture.
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.
Vapour pressure	: Not applicable
Relative density	: Not applicable
Bulk density	: ca. 690 kg/m3 , packed
Water solubility	: dispersible
Partition coefficient: n-octanol/water	: Not applicable
Viscosity, kinematic	: Not applicable
Relative vapour density	: Not applicable
Evaporation rate	: Not available for this mixture.

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 : Sulphur oxides

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute inhalation toxicity

- Thifensulfuron methyl
  LC50 / 4 h Rat : > 7.9 mg/l
  Information source: Internal study report

- Metsulfuron methyl
  LC50 / 4 h Rat : > 5.3 mg/l
  Information source: Internal study report

Repeated dose toxicity

- Thifensulfuron 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

  Oral - feed Rat
  Increase in blood urea nitrogen, altered hematology

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

  Oral Rat
  Exposure time: 90 d
  Reduced body weight gain, Liver effects

Oral Mouse
Exposure time: 90 d
NOAEL: > 5,000 mg/kg

Dermal Rabbit
Exposure time: 21 d
Drying of skin, Cracking of skin, Skin irritation

Dermal Rabbit
Exposure time: 21 d
NOAEL: 125 mg/kg
Drying of skin, Cracking of skin, Skin irritation

Oral Rat
Reduced body weight gain, Organ weight changes, Liver

Dermal Rabbit
Skin irritation

Mutagenicity assessment

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

- Metsulfuron methyl
  Animal testing did not show any mutagenic effects. Did not cause genetic damage in cultured bacterial cells. Genetic damage in cultured mammalian cells was observed in some laboratory tests but not in others.

Carcinogenicity assessment

- Thifensulfuron methyl
  Animal testing did not show any carcinogenic effects.

- Metsulfuron methyl
  Not classifiable as a human carcinogen. Did not show carcinogenic effects in animal experiments.

Toxicity to reproduction assessment

- Thifensulfuron methyl
  No toxicity to reproduction Animal testing showed no reproductive toxicity.

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

Assessment teratogenicity

- Thifensulfuron methyl
  Did not show teratogenic effects in animal experiments. Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.

- Metsulfuron methyl

Animal testing showed no developmental toxicity.

Further information

Information given is based on data on the components and the toxicology of similar products.

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

- Metsulfuron methyl
  static test / LC50 / 96 h / Oncorhynchus mykiss (rainbow trout): > 150 mg/l
  Method: OECD Test Guideline 203
  Information source: Internal study report

Toxicity to aquatic invertebrates

- Metsulfuron methyl
  static test / EC50 / 48 h / Daphnia magna (Water flea): > 120 mg/l
  Method: OECD Test Guideline 202
  Information source: Internal study report

Chronic toxicity to fish

- Thifensulfuron methyl
  NOEC / 62 d / Oncorhynchus mykiss (rainbow trout): 10.6 mg/l
  Information source: Internal study report

- Metsulfuron methyl
  NOEC / 21 h / Oncorhynchus mykiss (rainbow trout): 68 mg/l

  NOEC / 21 d / Oncorhynchus mykiss (rainbow trout): 68 mg/l
  Method: OECD Test Guideline 204
  Information source: Internal study report

Chronic toxicity to aquatic Invertebrates

- Thifensulfuron methyl

NOEC / 21 d / Daphnia magna (Water flea): > 340 mg/l
Information source: Internal study report

- Metsulfuron methyl
  NOEC / 21 h / Daphnia magna (Water flea): 100 mg/l

  NOEC / 21 d / Daphnia magna (Water flea): 100 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

Under actual use conditions the product has a low potential of mobility in soil.

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. (Thifensulfuron-methyl, Metsulfuron 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. (Thifensulfuron-methyl, Metsulfuron 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. (Thifensulfuron-methyl, Metsulfuron 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 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 Dir 92/85/EEC on the safety and health at work of pregnant workers.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.

H319	Causes serious eye irritation.
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

Further information

Take notice of the directions of use on the label.

Significant change from previous version is denoted with a double bar.

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.