


**RISK AND SAFETY
INFORMATION**
RATIO® SX® Herbicide

Containing 400 g/kg thifensulfuron methyl and 100 g/kg tribenuron methyl

Contains tribenuron-methyl. May produce an allergic reaction.

May cause damage to organs through prolonged or repeated exposure.

Very toxic to aquatic life with long lasting effects.

Do not breathe dust or spray. Avoid release to the environment. Get medical attention if you feel unwell.

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.

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).

To avoid risks to human health and the environment, comply with the instructions of use.

WARNING

FMC
RATIO® SX®
Cereal herbicide

GROUP 2 HERBICIDE

MAPP 21607


A soluble granule formulation containing 400 g/kg thifensulfuron methyl and 100 g/kg tribenuron methyl, sulfonylureas, for spring weed control in wheat, barley and winter oats.

The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work.

® is a trademark of FMC Corporation or an affiliate


 Contents: **450 g**
FOR PROFESSIONAL USE ONLY

FMC Agro Limited, Rectors Lane, Pentre, Flintshire, CH5 2DH. Tel: 01244 537370. Email: fmc.agro.uk@fmc.com. Website: www.fmc-agro.co.uk. Technical Helpline: 01423 205011

Emergency No.s - Medical Incidents Involving Crop

Protection Products: England & Wales: 111, Scotland: 08454 24 24 24, Northern Ireland: Local GP or Pharmacist, Republic of Ireland: 01 837 9964. Healthcare professionals seeking poisons information: www.toxbase.org.

Emergency No.s - Transportation, Warehousing & After Sale Incidents:

CHEMTREC help centre Dialling from the UK and NI: 0870 820 0418, Dialling from Ireland: 01 901 4670



The Voluntary Initiative

This label is compliant with the CropLife UK Voluntary Initiative Guidance

Batch N°:



To access the Safety Data Sheet for this product scan the code

11005555_22065993_GREAT BRITAIN AND NORTHERN IRELAND

	FILL IN		DIMENSION (WxH)
Country	GREAT BRITAIN AND NORTHERN IRELAND	Single label	
Product SKU	11005555	Base for Booklet	
Product SKU Description	RATIO SX_450G_GB	Booklet	BKL 290x110 mm (240x110 mm)
Label SKU	22065993	Number of pages (Booklet)	6 pages
Label SKU Description	LBL_ML-F_450G_RATIO SX_GB_2	Carton label	
Label SKU (earlier version)	22051591	Preprinted Material	No

IMPORTANT INFORMATION

FOR USE ONLY AS A PROFESSIONAL HERBICIDE

Crops/situations:	Maximum individual dose: (g product / ha)	Maximum total dose:	Maximum number of treatments: (per crop)	Latest time of application:
Barley, oats (winter), wheat	100	-	1	Up to and including flag leaf fully unrolled, ligule just visible (GS39)

The following Aquatic Buffer Zones must be observed:

Crops/situations:	Aquatic buffer zone distance (metres):	Comment:
Barley, oats (winter), wheat	8	see Environmental Protection Phrase 1

Other specific restrictions :

- (1) This product must not be applied via hand-held equipment.
 (2) Do not apply before the end of February in the year of harvest.

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE.FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS

SAFETY PRECAUTIONS**OPERATOR PROTECTION**

Engineering control of operator exposure must be used where reasonably practicable, in addition to the following personal protective equipment:

Engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

When using do not eat, drink or smoke.

ENVIRONMENTAL PROTECTION

(1) Crops/situations with >5m buffer zone:

Since there is a risk to aquatic life from use, direct spray from horizontal boom sprayers must not be allowed to fall within the distance specified for the crop of the top of the bank of any static or flowing waterbody or within 1m of the top of a ditch which is dry at the time of application.

Spray must be aimed away from water.

(2) Buffer zones must be measured in accordance with the guidance set out in the HSE Chemicals Regulation Division's website and any amendments made to it.

(3) To protect aquatic organisms respect an unsprayed buffer zone to surface water bodies in line with LERAP requirements. Detailed guidance on LERAPs and how to conduct a LERAP are contained in the guidance documents available from HSE Chemicals Regulation Division's website. All LERAPs must be carried out in accordance with this Guidance and any amendments that are made to it.

(4) Buffer zones greater than 5m are NOT eligible for buffer zone reduction under the horizontal boom LERAP scheme.

(5) The results of the LERAP must be recorded in written form and must be available for a period of three years for inspection to any person entitled to exercise enforcement powers under or in connection with the Plant Protection Products Regulations 2011 or the Plant Protection Products (Sustainable Use) Regulations 2012. (An electronic record will satisfy the requirement for a written record, providing it is similarly available for inspection and can be copied).

Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyard and roads.

OTHER SPECIFIC RESTRICTIONS

- (1) This product must not be applied via hand-held equipment.
 (2) Do not apply before the end of February in the year of harvest.

STORAGE AND DISPOSAL

Keep out of reach of children.
 Do not re-use container for any purpose and dispose of safely.
 Keep away from food, drink and animal feeding stuffs.

DIRECTIONS FOR USE

IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be read carefully in order to obtain safe and successful use of this product.

Restrictions

- RATIO® SX® should not be applied to any crop suffering from stress as a result of drought, waterlogging, low temperatures, pest or disease attack, nutrient or lime deficiency or other factors reducing crop growth.
- Do not use RATIO® SX® on cereal crops undersown with grasses, clover or other legumes or any other broad-leaved crop.
- Due to the high level of activity of the herbicide, special care must be taken to avoid damage by drift onto broad-leaved plants outside the target area, or onto ponds, waterways or ditches. Thorough cleansing of equipment is also very important - see below.
- Contract agents should be consulted before using on crops grown for seed.
- RATIO® SX® should not be applied within 7 days of rolling the crop.
- Do not apply RATIO® SX® more than once to any cereal crop.
- Do not tank mix on oats.
- Extreme care must be taken to avoid spray drift onto non-crop plants outside of the target area.

- All requirements or restrictions on other product labels must be adhered to when applied to the same crop as RATIO® SX®. Contact your FMC distributor for further information.
- Refer to 'Compatibility' for details on use of RATIO® SX® with other 'ALS inhibiting' herbicides.

Weed control

RATIO® SX® contains thifensulfuron-methyl and tribenuron-methyl, sulfonyleurea (ALS inhibitor) herbicides which work mainly by contact action and is most effective if applied when the weeds are small and actively growing. Good spray cover of the weeds must be obtained for best results. Susceptible plants cease growth almost immediately after application and symptoms can be seen about two weeks after application. Weed control may be reduced when soil conditions are very dry. Rain within four hours of application may reduce the effectiveness of the product.

The susceptibility rating of weeds in the following table refer to good spray cover and good growing conditions.

Weed Species	Plants up to		
	2 expanded true leaves	6 expanded true leaves	15 cm across/high
Charlock	S	S	S
Chickweed, Common	S	S	S
Cleavers	MS	MS	MR
Mayweed	S	S	S
Poppy, Common	S	S	S
Red Dead-nettle	S	MS	MS
Redshank	S	S	S
Shepherd's-purse	S	S	MS

S = Susceptible MS = Moderately Susceptible MR = Moderately Resistant

Resistance

This product contains tribenuron-methyl and thifensulfuron-methyl, which are ALS inhibitors, also classified by the Herbicide Resistance Action Committee as 'Group 2 (previously Group B)'. When herbicides with the same mode of action are used repeatedly over several years in the same field, selection of resistant biotypes can take place. These can propagate and may become dominating. A weed species is considered resistant to a herbicide if it survives a correctly applied treatment at the recommended dose. Development of resistance with a weed species can be avoided or delayed by alternating (or tank mixing) with suitable products having a different mode of action which have activity against the target weeds.

A strategy for preventing and managing resistance should be adopted. The use of cultural methods of control and herbicides with non-ALS modes of action within the cropping season and/or throughout the cropping rotation will help reduce the risk of developing resistance. Do not apply to weeds where target site resistance to ALS inhibiting herbicides is confirmed. To reduce the risk of developing resistance applications should be made to young, actively growing weeds.

Always monitor effectiveness of weed control and investigate any patches of poor control. If unexplained, contact your agronomist, who may consider a resistance test appropriate. The Weed Resistance Action Group has produced guidelines and copies are available from the HCP, CropLife UK, your distributor, crop advisor or product manufacturer.

Crops

RATIO® SX® can be used on all varieties of winter and spring wheat, winter and spring barley and winter oats between the growth stages given below.

Dose

Apply RATIO® SX® at 100 g product/ha.

Timing

Winter wheat, barley, oats: Apply RATIO® SX® in the spring from 1 March, from the onset of tillering (GS20) up to and including flag leaf fully unrolled, ligule just visible (GS39).

Spring wheat and barley: Apply RATIO® SX® in the spring from the three-leaf stage (GS 13) up to and including flag leaf fully unrolled, ligule just visible (GS39).

Safety to crops of oats treated before four tillers (GS 24) has not been assessed.

Following crops

Only cereals, oilseed rape, field beans or grass may be sown in the same calendar year as harvest of a cereal crop treated with RATIO® SX®. In case of crop failure for any reason, sow only cereals within three months of application of RATIO® SX®. Before sowing, soil should be ploughed and cultivated to a depth of at least 15-cm.

Volume and application

BEFORE USING RATIO® SX®, SPRAYING EQUIPMENT MUST BE CLEAN AND FREE FROM CONTAMINATION WITH OTHER PESTICIDES.

Application should be made in 100-200 litres of water per hectare, using suitable ground equipment to give good spray cover of the weeds. Use a conventional field crop sprayer at a pressure of 2-3 bars and apply as a MEDIUM spray (as defined by BCPC). When crops are thick or weed growth is dense, use 400 litres of water per hectare. Care should be taken not to overlap spray swaths.

Mixing

Quarter fill the spray tank with clean water, start the agitation and add the required quantity of RATIO® SX® directly to the tank without prior creaming. Continue agitation while topping up the tank and while spraying.

Compatibility

To widen the spectrum of activity and improve the control of some weeds, RATIO® SX® may be applied with other herbicides, provided each product can be applied within the label recommendations for its use. Always add RATIO® SX® to the spray tank first when using in tank-mix and ensure it is fully dispersed before adding the partner product.

The following 'joint application' with other sulfonylurea and 'ALS inhibiting' herbicides may be applied to a crop. Requirements and restrictions on other product labels must be adhered to. 'Joint application' is the use of RATIO® SX® in tank mixture or sequence with one of the products listed below.

Absolute	Exceed SX	Lexus Class	Spitfire
Atlantis WG	Gala	Lexus SX	Spitfire Solo
Barton WG	Galaxy	Octavian	Staka SX
Broadway Star	GF-184	Oklar SX	Starane Gold
Broadway Sunrise	GF-2070 \$	Oriel 50 SX	Starane Vantage
Boxer	Hatra	Othello	Starane XL
Bullion	Hiker	Pacifica	Unite \$
Dakota	Horus	Primus 25 SC	Excalibur
Ductis SX	Hunter	Pursuit*	
Eagle*	Image	Slalom	

* only cereals as following crop

\$ use in sequence only

Additional recommendations may be approved since label printing. Please consult your FMC distributor for latest details on compatibilities.

SPRAY TANK CLEAN-OUT

POOR CLEANOUT PRACTICES AND INSUFFICIENT WATER VOLUMES USED FOR THE RINSE PROCEDURE MAY RESULT IN INADEQUATE REMOVAL OF PRODUCT DEPOSITS. SUBSEQUENT USE OF APPLICATION EQUIPMENT IN THESE CIRCUMSTANCES MAY RESULT IN DAMAGE TO NON-CEREAL CROPS.

TO AVOID SUBSEQUENT DAMAGE TO CROPS OTHER THAN CEREALS, IMMEDIATELY AFTER SPRAYING RATIO® SX® THOROUGHLY CLEAN ALL SPRAY EQUIPMENT, INCLUDING INSIDE AND OUTSIDE OF LID, USING THE FOLLOWING PROCEDURE:

Always start with a clean tank and spray system. Clean spray equipment thoroughly immediately after use.

1. Thoroughly and completely rinse all interior tank surfaces (including lid) with water (use at least 10% of the tank capacity), taking care to remove any visible deposits. Flush pump, filters and boom after removing in-line strainers, nozzle tips and screens (clean these parts separately). Drain the remainder of the rinsate from the tank.
2. Repeat the rinse, flush and drain.
3. Dispose of washings safely. Do not spray onto sensitive crop or land intended for cropping with sensitive crop.

Note:

Consult label tank cleanup procedures for all tank mix partners and be sure to use the most rigorous procedure recommended.

WARNING

EXTREME CARE SHOULD BE TAKEN TO AVOID DAMAGE BY DRIFT OF SPRAY ONTO BROAD-LEAVED PLANTS OUTSIDE THE TARGET AREA OR ONTO PONDS, WATERWAYS OR DITCHES. SPRAYING EQUIPMENT SHOULD NOT BE DRAINED OR FLUSHED ONTO LAND PLANTED WITH OR INTENDED FOR PLANTING WITH TREES OR CROPS OTHER THAN CEREALS.

NOTICE TO BUYER

FMC as the manufacturer warrants that the composition of the product in sealed original FMC packaging complies with the information given on this label. FMC is not liable for any direct or indirect consequences resulting from improper storage, handling or use of the product contrary to or otherwise not in compliance with this label, law and regulations. Various factors, especially local conditions, such as soil condition, plant varieties and weather conditions, may either cause the product not to have the full desired effect or result in damage to the crops treated. FMC does not assume any liability for such results.

All manufacturers trademarks are duly acknowledged.

FMC, the FMC logo, SX® and Ratio® are trademarks of FMC Corporation and/or an affiliate.

©2016-2026 FMC Corporation. All rights reserved.