Dow AgroSciences

KERB* FLO

Product Registration Number: MAPP 13716.

A suspension concentrate containing 400 g/litre (35.3% w/w) propyzamide.

A residual herbicide for the control of a wide range of weeds in WINTER OILSEED RAPE and several other AGRICULTURAL and HORTICULTURAL CROPS, and in FORESTRY and AMENITY SITUATIONS.

SAFETY PRECAUTIONS

Operator protection:

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

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling the concentrate or contaminated surfaces.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) when applying by vehicle-mounted or trailed equipment.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND RUBBER BOOTS when applying by hand-held equipment.

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

WASH HANDS before meals and after work.

Environmental protection:

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.

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

Storage and disposal:

STORE IN ORIGINAL CONTAINER, tightly closed, in a safe place.

EMPTY CONTAINER COMPLETELY and dispose of safely.

IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL/FORESTRY HERBICIDE

Crops/Situations

Oilseed rape (winter), sugar beet (seed crop), field bean (winter), apple, blackberry, blackcurrant, gooseberry, loganberry, pear, plum, raspberry, redcurrant, rhubarb (outdoor use only), strawberry (outdoor use only), red clover (seed crop), white clover (seed crop), fodder rape (seed crop), kale (seed crop), turnip (seed crop), lucerne, lettuce (outdoor use only), forest, farm forestry, forest nursery, hedgerow, ornamental plant production (Christmas trees only), amenity vegetation

Maximum Individual Dose

Maximum Number of Treatments) Full details are given in the

Latest Time of Application) Important Information area on the attached leaflet

Other Specific Restrictions:

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.

HARMFUL

LIMITED EVIDENCE OF CARCINOGENIC EFFECT. VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES. THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF IN A SAFE WAY. USE APPROPRIATE CONTAINMENT TO AVOID ENVIRONMENTAL CONTAMINATION.

To avoid risks to man and the environment, comply with the instructions for use.

DANGEROUS FOR THE ENVIRONMENT

This label is compliant with the CPA Voluntary Initiative Guidance

The Voluntary Initiative

PROVIDING TRACEABILITY WITH PATENTED TECHNOLOGY

9 UKE 0811 KERB A

PROTECT FROM FROST.

SHAKE WELL BEFORE USE.

5 Litres e

BATCH NUMBER:

* Trademark of Dow AgroSciences LLC

P0025968607

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.

IMPORTANT INFORMATION

FUR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL/FORESTRY HERBICIDE

Crops/Situations	Maximum Individual Dose (litres product/hectare)	Maximum Number of Treatments	Latest Time of Application
Oilseed rape (winter), sugar beet (seed crop), field bean (winter)	2.1	One per crop	Before 1st February in year of harvest
Apple, blackberry, blackcurrant, gooseberry, loganberry, pear, plum, raspberry, redcurrant	4.25	One per year	Before 1st February in year of harvest
Rhubarb (outdoor use only)	4.25	One per year	Before 1st January in year of harvest
Strawberry (outdoor use only)	3.5	One per year	Before 1st January in year of harvest
Red clover (seed crop), white clover (seed crop), fodder rape (seed crop), kale (seed crop), turnip (seed crop), lucerne	1.75	One per crop	Before 1st February in year year of harvest
Lettuce (outdoor use only)	3.5	One per crop	Six weeks before harvest
Forest, farm forestry, forest nursery, hedgerow	3.75	One per year	-
Ornamental plant production (see Other Specific Restrictions)	3.75	One per year	-
Amenity vegetation	4.25	One per year	-

Other Specific Restrictions:

Use in ornamental plant production is restricted to application to Christmas trees only.

This product may only be applied to edible crops except lettuce between 1st October and the specified latest time of application.

DO NOT HARVEST CROPS FOR HUMAN OR ANIMAL CONSUMPTION FOR AT LEAST 6 WEEKS AFTER LAST APPLICATION. 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.

WARNINGS

Take care to avoid local overdosing.

Do not make more than one application of KERB* FLO within 9 months to the same area of land.

SOIL TYPES

KERB FLO can be used on all soil types with the following exceptions:

1. Do not use on soils containing more than 10% organic matter.

2. Do not use on strawberries or winter field beans grown in certain soil types. See Crop Recommendation tables.

SOIL TEXTURE (85 System)	
Textural Group	**Textural class**
Sands	Coarse sand, Sand, Fine sand, Loamy coarse sand
Very Light Soils	Loamy sand, Loamy fine sand, Coarse sandy loam
Light Soils	Sandy loam, Fine sandy loam, Sandy silt loam, Silt loam (85)
Medium Soils	Sandy clay loam, Clay loam, Silty clay loam
Heavy Soils	Sandy clay, Clay, Silty clay

SOIL AND WEATHER CONDITIONS

KERB FLO requires moisture for root uptake. Best residual action is obtained in moist soils of fine tilth.

KERB FLO can be applied under frosty conditions but should not be used where run-off from the soil surface is likely.

Best results are achieved when growth of weeds (especially blackgrass and volunteer cereals) is slow, but transpiration continues. In mild autumns/winters, emerged weeds may take longer to be controlled, the residual activity of KERB FLO will be shortened and overall control may be reduced.

The efficacy of KERB FLO may be reduced in organic soils and in the presence of excessive surface organic debris, burnt straw, ash, or ploughed-up turf.

In winter field beans ensure a firm seedbed before spraying.

*Trademark of Dow AgroSciences LLC

RESISTANCE

Strains of some annual grasses (eg blackgrass, wild oats, Italian ryegrass) have developed resistance to herbicides which may lead to poor control. A strategy for preventing and managing such resistance should be adopted. Guidelines have been produced by the Weed Resistance Action Group and copies are available from the HGCA, CPA, your distributor, crop adviser or product manufacturer.

CROP INFORMATION

Note: Specific application information for each crop is contained in the Crop Recommendation Tables that follow.

WINTER OILSEED RAPE
KERB FLO can be applied after the use of an approved specific graminicide applied in accordance with the manufacturer's recommendations.

CLOVER, BRASSICAS AND SUGAR BEET GROWN FOR SEED
Treated clover, brassicas and sugar beet must not be used for human or animal consumption.

AMENITY VEGETATION – TREES, SHRUBS AND ORNAMENTAL PLANTS
KERB FLO is recommended for use on the following species which have been planted out not later than the previous spring: *Berberis darwinii, Buddleia davidii, Chamaecyparis spp* (False Cypress), *Cotoneaster spp, Crataegus spp* (Hawthorns), *Fagus sylvatica* (Beech), *Forsythia x intermedia, Ilex aquifolium* (Holly), *Larix decidua* (Larch), *Philadelphus spp* (Mock Orange), *Picea spp* (Spruces), *Pinus spp* (Pines), *Prunus gladulosa, Quercus spp* (Oak), *Rosa spp* (Roses including Rose rootstocks), *Spiraea x bumalda 'Froebelii', Syringa vulgaris* (Lilac), *Taxus baccata* (Yew), *Thuja orientalis, 'Rosedalis'.*

FORESTRY, FARM FORESTRY, FOREST NURSERY, HEDGEROW
KERB FLO is recommended for use on the following species: Alder, Beech, Southern Beech, Birch, Douglas Fir, Grand Fir, Noble Fir, Horse Chestnut, Larch, Lawson Cypress, Oak, Bishop Pine, Corsican Pine, Lodgepole Pine, Monterey Pine, Scots Pine, Poplar, Norway Spruce, Sycamore, Sitka Spruce, Western Hemlock, Wild Cherry.

ORNAMENTAL PLANT PRODUCTION
KERB FLO may be used in the production of Christmas trees only.

PROCESSED CROPS
No taints have been detected in tests with treated field crops. Consult your processor before use.

WATER VOLUMES
Winter oilseed rape, sugar beet (seed crops), winter field beans, lucerne, brassicas (for seed production), clover (seed crops): Apply KERB FLO in 200 to 1000 litres of water per hectare.

Apple, blackcurrant, blackberry, gooseberry, loganberry, pear, plum, raspberry, redcurrant, rhubarb (outdoor), strawberry (outdoor), lettuce (outdoor), forestry, farm forestry, forest nursery, hedgerow, ornamental plant production (Christmas trees only), amenity vegetation: Apply KERB FLO in 400 to 1000 litres of water per hectare.

Ensure good ground cover.

APPLICATION EQUIPMENT
Do not apply through broadcast air-assisted sprayers.

All crops: Application may be made through a ground crop sprayer.

Forestry, farm forestry, forest nursery, hedgerow, ornamental plant production (Christmas trees only), amenity vegetation: KERB FLO may also be applied via a knapsack sprayer.

FOLLOWING CROPS

The number of weeks which must elapse between the last application of KERB FLO and drilling or planting of the following crop is shown in the table below:

Following crops	Rate of KERB FLO applied to previous crop	Date KERB FLO applied to previous crop	
		1st April – 31st July	1 st August – 31st March
Lettuce	1.75–4.25 litres/ha	0 weeks	0 weeks
Field beans, broad beans, peas, chicory, radish, clover, lucerne	1.75–4.25 litres/ha	5 weeks	10 weeks
Brassicas, leeks, onions, parsley, parsnips, celery, oilseed rape, strawberries	1.75–4.25 litres/ha	10 weeks	25 weeks or plant/sow after 15th June whichever occurs sooner
Cereals and grasses[4]	1.75–2.1 litres/ha	40 weeks	30 weeks
	2.75–4.25 litres/ha		40 weeks
Any other crop[4]	2.75–4.25 litres/ha	20 weeks	40 weeks

[4] Treated land must be mouldboard ploughed to a depth of 15 cm prior to drilling a following cereal, grass or any other crop not listed above.

Please consult Dow AgroSciences if a treated crop fails because of bad growing conditions.

MIXING

Add half the required volume of water to the spray tank and begin agitation. Shake the container vigorously and add the recommended quantity of KERB FLO through the filter basket. When container becomes empty, wash out with water and add the washings through the filter basket. Rinse through the filter basket and add the rest of the water. Agitate while topping up the tank and continue agitation until spraying is complete.

Spray immediately: do not allow the mixture to stand.

Thoroughly wash all spraying and measuring equipment with water immediately after use.

CROP RECOMMENDATION TABLES

S = Susceptible MS = Moderately susceptible MR = Moderately resistant R = Resistant

Crop	Rate of Use	Weed Species	Stage of Weed Growth			Time of Year	Timing Stage of Crop	Soil Type (Soil Texture (85 System))
			Germi-nating	Up to 2 leaf	Estab-lished			
Winter oilseed rape	1.75 litres/ha	Annual meadow-grass, barren brome, volunteer cereals, wild-oat	S	S	S	1st October to 31st January	As soon as possible after 3rd true leaf stage. Crop selectivity is by depth protection. Factors which cause shallow rooting may reduce crop selectivity.	All soils with less than 10% organic matter.
		Common chickweed	S	S	S[1]			
		Blackgrass	S	S	MS[2]			
		Black-bindweed, black nightshade, fat-hen, knotgrass, redshank, small nettle, speedwells	S	S	MR			
		Field forget-me-not	MS	MS	R			
		Cleavers	MS	MR	R			
	1.25 litres/ha - Use this rate only where a specific graminicide has controlled volunteer cereals and grass weeds and chickweed is not a problem	Annual meadow-grass, volunteer cereals, wild-oat	S	S	S			
		Black-bindweed, black nightshade, common chickweed, fat-hen, knotgrass, redshank, small nettle	S	S	R			
		Speedwells	S	R	R			
Sugar beet grown for seed **Winter field beans**	2.1 litres/ha	Annual meadow- grass, barren brome, common chickweed, volunteer cereals, wild-oat	S	S	S	**Sugar beet grown for seed:** 1st October to 31st January **Winter field beans:** 1st October to 31st January	**Sugar beet grown for seed:** As soon as possible after 4th true leaf stage. **Winter field beans:** Within 7 days after drilling but before crop emerges.	**Sugar beet grown for seed:** All soils with less than 10% organic matter. **Winter field beans:** Use only on medium or heavy soils with less than 10% organic matter.
		Blackgrass	S	S	MS			
		Black-bindweed, black nightshade, fat-hen, knotgrass, redshank, small nettle, speedwells	S	S	MR			
		Cleavers	MS	MR	R			

Crop	Rate of Use	Weed Species	Stage of Weed Growth			Time of Year	Timing Stage of Crop	Soil Type (Soil Texture (85 System))
			Germi-nating	Up to 2 leaf	Estab-lished			
Apple, blackcurrant, blackberry, gooseberry, loganberry, pear, plum, raspberry, redcurrant, rhubarb (outdoor use only), strawberry (outdoor use only)	2.1 litres/ha	Blackgrass	S	S	MS	**Strawberry, rhubarb:** 1st October to 31st December **Other crops:** 1st October to 31st January	**Strawberry:** Established crops planted for at least one year. **Other crops:** Established crops planted for at least one season.	**Strawberry:** Use only on heavy soils with less than 10% organic matter. **Other crops:** All soils with less than 10% organic matter.
		Annual meadow-grass, barren brome, common chickweed, volunteer cereals, wild-oat	S	S	S			
		Black-bindweed, black nightshade, fat-hen, knotgrass, redshank, small nettle, speedwells	S	S	MR			
	Strawberry: (not matted row crops) 3.5 litres/ha **Other crops:** 4.25 litres/ha	Annual meadow-grass, barren brome, blackgrass, common chickweed, volunteer cereals, wild-oat	S	S	S			
		Common couch[3] and other perennial grasses	S	S	S			
		Black-bindweed, black nightshade, fat-hen, knotgrass, redshank, small nettle, speedwells	S	S	MS			
		Cleavers	S	S	R			
		Common fumitory, shepherd's-purse	MS	MS	R			
		Creeping buttercup, broad-leaved dock, sheep's sorrel	S	MS	MS			
		Field horsetail	MS	MS	MS			

Crop	Rate of Use	Weed Species	Stage of Weed Growth			Time of Year	Timing Stage of Crop	Soil Type (Soil Texture (85 System))
			Germi-nating	Up to 2 leaf	Estab-lished			
Brassicas grown for seed (fodder rape, kale, turnip), clover grown for seed (red and white), lucerne	1.75 litres/ha	Blackgrass	S	S	MS	1st October to 31st January	**Brassicas grown for seed:** As soon as possible after 3rd true leaf stage. **Clover grown for seed:** Established crops grown for at least one season. **Lucerne:** Established crops grown for at least one season. Not less than 7 days after last cut.	All soils with less than 10% organic matter.
		Annual meadow-grass, barren brome, common chickweed, volunteer cereals, wild-oat	S	S	S			
		Black-bindweed, black nightshade, fat-hen, knotgrass, redshank, small nettle, speedwells	S	S	MR			
		Cleavers	MS	MR	R			
Lettuce (outdoor use only)	2.75-3.5 litres/ha Under dry soil conditions or warm weather use 3.5 litres/ha and irrigate or incorporate.	Annual meadow-grass, barren brome, blackgrass, common chickweed, volunteer cereals, wild-oat	S	S	S	Any time up to 6 weeks before harvest	Before or after drilling	All soils with less than 10% organic matter.
		Black-bindweed, black nightshade, fat-hen, knotgrass, redshank, small nettle, speedwells	S	S	MS			
		Cleavers, common fumitory, shepherd's-purse	MS	MS	R			

Crop	Rate of Use	Weed Species	Stage of Weed Growth			Time of Year	Timing Stage of Crop	Soil Type (Soil Texture (85 System))
			Germi-nating	Up to 2 leaf	Estab-lished			
Forestry, farm forestry, forest nursery, hedgerow (see list of species under 'Crop Information') **Ornamental plant production** (Christmas trees only)	3.75 litres/ha	Common bent, common couch, sweet vernal grass, tufted hair-grass, Yorkshire-fog and other perennial grasses	S	S	S	1st October to 31st January North of a line Aberystwyth to London (see also Soil Type) 1st October to 31st December South of a line Aberystwyth to London (see also Soil Type)	**Forests:** Any stages including pre-planting. **Nurseries:** Treat no earlier than one month after transplanting.	**Mineral Soils** (surface water gleys, brown earths and sands). Use between 1st October and 31st January. (See also Time of Year). **Peat Soils** (peaty gleys and peat soils with a depth of organic matter greater than 10 cm): between 1st October and 31st December. (See also Time of Year).
		Creeping soft-grass	S	S	MS			
		Cock's foot	S	S	MR			
		Field horsetail	MS	MS	MS			
		Sedges	MS	MS	MS			
		Foxglove, willowherbs	R	R	R			

Crop	Rate of Use	Weed Species	Stage of Weed Growth			Time of Year	Timing Stage of Crop	Soil Type (Soil Texture (85 System))
			Germi-nating	Up to 2 leaf	Estab-lished			
Amenity vegetation – trees, shrubs and ornamental plants (see list of species under 'Crop Information')	2.1 litres/ha	Annual meadow-grass, barren brome, blackgrass, common chickweed, volunteer cereals, wild-oat	S	S	S	1st October to 31st January	Established crops planted for at least one season.	All soils with less than 10% organic matter.
		Black-bindweed, black nightshade, fat-hen, knotgrass, redshank, small nettle, speedwells	S	S	MR			
	4.25 litres/ha	Annual meadow-grass, barren brome, blackgrass, common chickweed, volunteer cereals, wild-oat	S	S	S			
		Common couch and other perennial grasses	S	S	S			
		Black-bindweed, black nightshade, fat-hen, knotgrass, redshank, small nettle, speedwells	S	S	MS			
		Cleavers	S	S	R			
		Common fumitory, shepherd's-purse	MS	MS	R			
		Creeping buttercup, broad-leaved dock, sheep's sorrel	S	MS	MS			
		Field horsetail	MS	MS	MS			
All listed crops	All rates	Common poppy, gallant soldier, groundsel, mayweed, scarlet pimpernel, clover, dandelion, field bindweed, ragwort, thistle	R	R	R	Any time	Any stage	All soils

NOTES FOR CROP RECOMMENDATION TABLES

1	Chickweed control may be reduced where it is well established (over 10 cm in diameter).
2	**CONTROL OF BLACKGRASS IN WINTER OILSEED RAPE** Established (well-tillered) blackgrass is moderately susceptible: Where populations of blackgrass and/or volunteer cereals exceed 50/m^2 KERB FLO should be applied in tank mix with an approved graminicide, or following an effective approved graminicide to ensure optimum weed control. Deeper germinating blackgrass within the soil profile could reduce product efficacy. When applied alone in late season, it is unlikely this higher dose will markedly improve control of well tillered blackgrass. Where partial resistance (R# or RR#) to the partner graminicide is known to exist the dose of KERB FLO may be increased to 2.1 litres/ha. This may also be done if applications are made early in the season, under warm conditions and an increase in the duration of residual control is required (see 'Soil and weather conditions' above). Where high levels of resistance (RRR#) to the partner graminicide occurs there is no advantage of adding this graminicide to KERB FLO for blackgrass control, and KERB FLO even at 2.1 litres/ha will not give acceptable levels of established blackgrass control in these circumstances. # R = 1* RR = 2*/3* RRR = 4*/5*
3	For heavy infestation of common couch a repeat application may be required the following winter. Avoid deep burying of rhizomes when preparing land prior to KERB FLO treatment.

Dow AgroSciences Conditions of Supply
All goods supplied by us are of high grade and we believe them to be suitable but, as we cannot exercise control over their storage, handling, mixing or use, or the weather conditions before, during or after application which may affect the performance of the goods, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our goods are excluded. No responsibility will be accepted by us or re-sellers for any failure in performance, damage or injury whatsoever arising from their storage, handling, application or use. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such goods.

Dow AgroSciences Limited
Latchmore Court, Brand Street, Hitchin, Hertfordshire. SG5 1NH.
Telephone: Hitchin (01462) 457272 Fax: (01462) 426605
24 Hour Emergency Telephone Number: +44 (0) 1553 761 251

SAFETY DATA SHEET
This safety data sheet does not form part of the label approved under the Plant Protection Product Regulations 1995. Following the instructions on the pesticide label for the specified uses should ensure that the product is used safely and efficaciously for those uses.

Product Name: **KERB FLO HERBICIDE**

LV70: 89011 Issue Date: Aug. 00 Ref: JFA13
Revised: Dec. 10 (Section(s) 4, 15)

For questions about this SDS, contact:
SDSQuestion@dow.com

2. HAZARDS IDENTIFICATION

Limited evidence of a carcinogenic effect. Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Dangerous components (see section 16 for complete R-phrases):

			CAS	EC No
Propyzamide	35–36%	Xn,N; R40-50/53	023950-58-5	245-951-4
Ethylene glycol	3–4%	Xn; R22	000107-21-1	203-473-3
Inert ingredients	Balance			
Composition Code	GF1197			

4. FIRST-AID MEASURES

Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

Ingestion
Do not induce vomiting. Call a physician. The decision of whether to induce vomiting or not should be made by a physician.

Eye Contact
Flush eyes thoroughly with water for several minutes. Remove contact lenses after initial 1–2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Skin Contact
Wash off in flowing water or shower, use soap if available. Consult a physician if irritation persists.

Inhalation
Remove to fresh air. Consult a physician.

Note to Physician
Supportive care. Treatment based on judgement of physician in response to symptoms of patient.

Emergency personnel protection
If potential exposure exists refer to Section 8 for specific personal protective equipment.

5. FIRE-FIGHTING MEASURES

Extinguishing Media
Water fog or fine spray.
Carbon dioxide.
Dry chemical powder.
Foam.

Hazardous Combustion Products
During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.

Combustion products include: Carbon oxides. Hydrogen chloride. Nitrogen oxides.

Protection of Firefighters
Wear protective clothing and use self-contained breathing apparatus.

Additional Information
Keep containers cool by spraying with water. Contain run-off to prevent entry into water or drainage systems. Work upwind of any spill. Avoid breathing smoke.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Wear appropriate safety clothing and eye/face protection (see Section 8). Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before re-use or dispose of properly.

Environmental Precautions
Do not wash into sewers or into any body of water. Advise water authority if spillage has entered water course or drainage system.

Methods of Cleaning Up
Soak up with sand or other non-combustible absorbent material and place into containers for disposal. For large spills, barricade area and consult manufacturer. If further assistance is required, telephone the emergency contact number.

7. HANDLING AND STORAGE

Handling
Use good personal hygiene. Do not consume or store food in the work area. Wash hands and exposed skin before eating, drinking or smoking and after work.

Storage
Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilisers. Keep out of reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines
Active ingredient: Dow AgroSciences recommendation is 0.1 mg/m^3.
Can Be Absorbed Through Skin.

UK & IRELAND:
ETHANE-1,2-DIOL, VAPOUR
UK: Time-weighted average(TWA) is 52 mg/m^3 (20 ppm).
Short-term exposure limit (STEL) is 104 mg/m^3 (40 ppm).

IRELAND: Irish skin designation (has capacity to penetrate intact skin on contact and be absorbed into the body).
Irish 8-hour OEL Time-weighted average (TWA) is 52 mg/m^3 (20 ppm).
Irish 15-minute OEL Short-term exposure limit (STEL) is 104 mg/m^3 (40 ppm).

Engineering Controls
Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

Respiratory Protection
For most conditions, no respiratory protection should be needed.
However, when airborne exposure guidelines and/or comfort levels may be exceeded use an approved air-purifying respirator.
For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Hand/Skin Protection
For brief contact, no precautions other than clean body-covering clothing and chemical resistant gloves should be needed. When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material.

For emergency conditions: Use protective clothing impervious to this material. Selection of specific items will depend on operation.

Eye/Face Protection
Use safety glasses. Where contact with the liquid is likely, chemical goggles are recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: light brown
Odour	: mild
Water solubility	: disperses
Flash point	: none (water based)
Viscosity	: 400–800 mPa.s
Melting point/range	: –20 deg.C
Boiling point/range	: 100 deg.C
pH	: 7.4–8.4
Specific gravity	: 1.14–1.17 g/cm^3

10. STABILITY AND REACTIVITY

Chemical Stability
Is stable under normal storage conditions.

Conditions to Avoid
None determined.

Materials to Avoid
None known.

Hazardous Decomposition Products
None under normal conditions of storage and use. Thermal decomposition products include: Hydrogen chloride.

11. TOXICOLOGICAL INFORMATION

Ingestion
Low toxicity if swallowed. The oral LD_{50} for rats is >5000 mg/kg.

Skin Contact
The dermal LD50 for rabbits is >5000 mg/kg. Prolonged skin contact is unlikely to result in absorption of harmful amounts. Essentially non-irritating to the skin.

Sensitisation
Based largely or completely on information for similar material(s). Non-sensitising to guinea pig skin.

Eye Contact
May cause slight temporary eye irritation.

Inhalation
No adverse effects anticipated by this route of exposure incidental to proper handling.

Carcinogenicity
Active ingredient: This substance is classified as a category 3 carcinogen in the EC.

Mutagenicity
Not mutagenic.

Developmental/Reproductive Effects
Not toxic for reproduction.

12. ECOLOGICAL INFORMATION

Assessment largely or completely based on data for active ingredient.

Persistence and Degradability
Half-life in soils is dependent on soil type and conditions and is approximately 30 days.

Aquatic Toxicity
Material is toxic to fish on an acute basis (1 mg/L <LC_{50} <10 mg/L).
Acute LC_{50} for daphnids is reported to be >5.6 mg/L.

Avian Toxicity
Acute oral LD_{50} for mallard duck is >10000 mg/kg.
Acute oral LD_{50} for bobwhite (Colinus virginianus) is >10000 mg/kg.

13. DISPOSAL CONSIDERATIONS

Do not contaminate ponds, waterways or ditches with chemical or used container. Wash out thoroughly. Container and washings must be disposed of safely and in accordance with applicable regulations. The preferred options are to send to licensed reclaimer or to permitted incinerators.

14. TRANSPORT INFORMATION

Road & Rail

Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Propyzamide)
Truck/Rail ADR/RID	:	9 Label : 9
Classification Code	:	M6
Packing Group	:	III
Kemler Code	:	90 UN Nr : 3082
Tremcard Nr. CEFIC	:	90GM6-III

Sea

Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Propyzamide)
Sea - IMO/IMDG Class	:	9 UN Nr : 3082 Label : 9
Packing Group	:	III EMS : F-AS-F
Marine Pollutant	:	Y (Y/N)

Air

Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Propyzamide)
Air-ICAO/IATA Class	:	9 UN Nr : 3082 Label : 9
Sub Class	:	
Packing Group	:	III Pack Instr. Passenger : 914 Pack Instr. Cargo : 914
Remarks	:	Sample shipment not allowed by mail.

15. REGULATORY INFORMATION

European Inventory of Existing Commercial Chemical Substances (EINECS)
The components of this product are on the EINECS inventory or are exempt from inventory requirements.

Hazard Symbol : Xn – Harmful
N – Dangerous for the Environment

Risk Phrases : Limited evidence of a carcinogenic effect (R40).
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment (R50/53).

Safety Phrases : This material and its container must be disposed of in a safe way (S35).
Wear suitable protective clothing and gloves (S36/37).
Use appropriate containment to avoid environmental contamination (S57).

To avoid risks to man and environment, comply with the instructions for use.

For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

16. OTHER INFORMATION

Risk-phrases in Section 3
R22 – Harmful if swallowed.
R40 – Limited evidence of a carcinogenic effect.
R50/53 – Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The information herein is given in good faith and to the best of our knowledge but no warranty, express or implied, is made.

Dow AgroSciences

KERB* FLO

H

Product Registration Number: MAPP 13716.

A suspension concentrate containing 400 g/litre (35.3% w/w) propyzamide.

A residual herbicide for the control of a wide range of weeds in WINTER OILSEED RAPE and several other AGRICULTURAL and HORTICULTURAL CROPS, and in FORESTRY and AMENITY SITUATIONS.

SAFETY PRECAUTIONS

Operator protection:

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

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling the concentrate or contaminated surfaces.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) when applying by vehicle-mounted or trailed equipment.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND RUBBER BOOTS when applying by hand-held equipment.

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

WASH HANDS before meals and after work.

Environmental protection:

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.

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

Storage and disposal:

STORE IN ORIGINAL CONTAINER, tightly closed, in a safe place.

EMPTY CONTAINER COMPLETELY and dispose of safely.

IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL/FORESTRY HERBICIDE

Crops/Situations

Oilseed rape (winter), sugar beet (seed crop), field bean (winter), apple, blackberry, blackcurrant, gooseberry, loganberry, pear, plum, raspberry, redcurrant, rhubarb (outdoor use only), strawberry (outdoor use only), red clover (seed crop), white clover (seed crop), fodder rape (seed crop), kale (seed crop), turnip (seed crop), lucerne, lucerne (outdoor use only), forest, farm forestry, forest nursery, hedgerow, ornamental plant production (Christmas trees only), amenity vegetation

Maximum Individual Dose

Maximum Number of Treatments) Full details are given in the Important Information

Latest Time of Application) area on the attached leaflet

Other Specific Restrictions:

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.

HARMFUL

DANGEROUS FOR THE ENVIRONMENT

LIMITED EVIDENCE OF CARCINOGENIC EFFECT. VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES. THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF IN A SAFE WAY. USE APPROPRIATE CONTAINMENT TO AVOID ENVIRONMENTAL CONTAMINATION.

To avoid risks to man and the environment, comply with the instructions for use.

This label is compliant with the CPA Voluntary Initiative Guidance

The Voluntary Initiative

PRIDING TRACEABILITY WITH PATENTED TECHNOLOGY

9 UKE 0811 KERB A

PROTECT FROM FROST.

SHAKE WELL BEFORE USE.

5 Litres e

BATCH NUMBER:

* Trademark of Dow AgroSciences LLC