

Safety Data Sheet (SDS) PAR 200 SL/02

According to GHS 8th Ed
Revision Date: 2024/09/25

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First print date: 2013/01/21

Version: 5.4

SECTION 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

Product identifier:

Identification as on the label/Trade name: **PARAGONE 200 SL**

Additional information: Product code PAR 200SL/02.

Relevant identification uses of the substance and uses advised against:

Identified uses: Herbicide.

Uses advised against: **This remedy is restricted due to severe or irreversible adverse effects on human health or the environment. This remedy may only be sold to and used by a registered pest control operator, or by someone under the supervision of a registered pest control operator, and only for those uses covered by the pest control operator's scope of registration, and only as directed on the label.**

Details of the supplier of the Safety Data Sheet:

AECI Limited
14 Field Road, LILANTON

Emergency telephone numbers:

Griffon Poison information centre: 082 446 8946
Poisons Information Helpline: 0861 555 777
AECI Limited: (011) 823 8000 (o/h) Spill Tech: 086 100 0366 (a/h)

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to:

SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP]	
Hazard classes/Hazard categories	Hazard statement
Acute toxicity oral (Category 4)	H302
Acute toxicity inhalation (Category 3)	H331
Skin irritation (Category 2)	H315
Serious eye damage (Category 1)	H318
Specific target organ toxicity repeated exposure (Category 1)	H372
Hazardous to the aquatic environment (Acute 1)	H400
Hazardous to the aquatic environment (Chronic 1)	H410

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: None.

The most important adverse human health effects: Toxic if inhaled, irritating to skin causes serious eye damage.

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Label elements

Hazard pictograms:



Signal Word: Danger

Hazard Statements: H302 Harmful if swallowed. H331 Toxic if inhaled. H315 Causes skin irritations. H318 Causes serious eye damage. H372 Causes damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements: P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P301 + P312 IF SWALLOWED: Call a POISON CENTRE or doctor/ physician if you feel unwell.

Special labelling of certain mixtures: None

Other hazards: None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Ingredients:

Substance name (IUPAC/EC)	CAS –No.	Concentration % By weight	Classification
	EC-No.		EC1272/2008
Paraquat dichloride	1910-42-5	10-30%	Acute toxicity oral, dermal (Category 3) H301+ H311. Acute toxicity inhalation (Category 2) H330. Skin irritant (Category 2) H315. Eye irritant (Category 2) H319. STOT SE 3 H335, STOT RE 1 H372. Aquatic acute 1 H400. Aquatic chronic 1 H410.
	217-615-7		
Quaternary ammonium compounds, coco alkylbis(hydroxyethyl)methyl, chlorides	70750-47-9	1-5%	Flammable liquid (Category 2) H225. Acute toxicity oral (Category 4) H302. Skin corrosion (Category 1B) H314. Serious eye damage (Category 1) H318. STOT SE 3 H336, Aquatic acute 1 H400. Aquatic chronic 1 H410.
	274-846-6		
dimethyldioctadecylammonium chloride	107-64-2	1-5%	Serious eye damage (Category 1) H318. Aquatic acute 1 H400. Aquatic chronic 1 H410.
	203-508-2		

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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES

Description of first aid measures:

In case of inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately, contact Poison centre.

In case of skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

In case of eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

In case of ingestion: Immediately transfer patient to nearest hospital or medical centre, warning by telephone of the estimated arrival time so that the start of treatment is not delayed. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms and effects, both acute and delayed:

Inhalation: Toxic if inhaled.

Ingestions: Harmful if ingestion.

Skin contact: May be harmful in contact with skin and causes irritation.

Eye contact: Causes serious damage to eyes.

Indication of any immediate medical attention and special treatment needed:

Immediate medical attention is required if exposure to the product. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

SECTION 5. FIRE -FIGHTING MEASURE

Extinguisher media:

Suitable extinguisher media: Carbon dioxide, foam dry chemical and water fog.

SMALL FIRE: Extinguish small fires with carbon dioxide, dry powder, or alcohol-resistant foam.

LARGE FIRE: Water spray can be used for larger fires or cooling of unaffected stock but avoid the accumulation of polluted run-off from the site.

Unsuitable extinguishing media: Do not use high volume water jet, due to contamination risk.

Special hazards arising from the mixture:

During a fire, irritating and possibly toxic gasses may be generated by thermal decomposition or combustion. Closed container may explode if pressure builds up. Toxic or irritating gas may be generated during fire.

Advice for fire-fighters:

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Be sure to use an approved/certified respirator or equivalent.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment and emergency procedures:

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For non-emergency personnel: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

For emergency responders: Use an approved/certified respirator or equivalent, isolate the spill area and limit the access to emergency responders only. Avoid any contact with spilled material, use adequate protective clothes and gloves.

Environmental precautions:

Cover drains. Prevent from entering soil, ditches, sewers, waterways and/or groundwater.

Methods for containment and cleaning up:

For small spills Contain spilled material if possible. Collect in suitable and properly labelled containers. Absorb with materials such as: sand, earth, vermiculite or diatomaceous earth.

For large spills Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g., sand, earth, vermiculite or diatomaceous earth and place in well labelled container for disposal according to local regulations.

Reference to other sections:

See section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See section 13 for information on disposal.

Additional information:

None.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Keep locked up. Keep container dry. Keep away from heat. Keep away from sources of ignition. Do not ingest. Do not breathe gas/fumes/ vapour/spray. Never add water to this product. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing. Never add water to this product.

Protective measures: Observe directions on label and instructions for use.

Advice on general occupational hygiene: Do not eat drink or smoke when handling this product.

Conditions for safe storage, including incompatibilities:

Store product in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

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Occupational exposure limits (OEL):

Paraquat dichloride: ACGIH TLV (1997) TWA: 0.3 ppm Form: Vapour.

Biological exposure indices (BEI): No information available.

Additional exposure limits under the conditions of use: No information available.

Exposure control:

Appropriate engineering controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective OEL's. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Use safety glasses. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

Hand protection: Use chemical resistant gloves. Examples of preferred glove barrier materials include Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, Polyvinyl alcohol, Polyvinyl chloride.

Body protection: Appropriate impervious clothing is required to prevent skin contact with the product.

Respiratory protection: Respiratory protection is required; use an approved air-purifying respirator.

Environmental exposure controls: Prevent product from entry into sewers and water courses.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance (form): Liquid.

Colour: Dark green.

Odour: Strong.

Odour threshold: No information available.

pH (at concentration): 5.64 (100%)

Melting point/range (°C): Not applicable

Boiling point/range (°C): No information available.

Flash point (°C): No information available.

Evaporation rate: No information available.

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Flammability (solid, gas): No information available

Ignition temperature (°C): No information available.

Upper/lower flammability/explosive limits: No information available.

Vapour pressure (20°C): No information available.

Vapour density: No information available.

Relative density (20°C): 1.081 g/cm³

Water solubility (g/l) at 20°C: No information available.

n-Octanol/Water partition coefficient: No information available

Auto-ignition temperature: No information available.

Decomposition temperature: No information available.

Viscosity, dynamic (mPa s): No information available.

Physical hazards:

Explosive properties: Not known.

Other information:

Fat solubility (solvent-oil to be specified): No information available.

Bulk density: No information available.

Dissociation constant in water (p Ka): No information available.

Oxidation-reduction potential: No information available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity:

The product is stable under normal conditions.

Chemical stability:

No information available.

Possibility of hazardous reactions:

No information available.

Conditions to avoid:

No information available.

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Incompatible materials:

Oxidizing agents.

Hazardous decomposition products:

No information available.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: No Information available.

Excretion:

Paraquat dichloride

In rats following oral administration 76-90% of the dose was excreted in the faeces and 11-20% in the urine.

Information on toxicological effects:

Acute toxicity: Paragone 200SL

Acute oral toxicity LD₅₀ for rat 532.2 mg/kg (tested).

Acute dermal LD₅₀ for rat >2000 mg/kg (tested).

Acute inhalation LC₅₀ (4 h) for rat 0.80 mg/ℓ (tested) for dust and mists.

Paraquat dichloride

Acute oral toxicity LD₅₀ for rat 129-157 mg/kg.

LD₅₀ for guinea pigs 22-80 mg/kg.

Acute percutaneous toxicity LD₅₀ for rat > 911 mg/kg.

Absorption through intact human skin is minimal; exposures can cause irritation and a delay in the healing of cuts and wounds; can cause temporary damage to nails.

Chronic toxicity: Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Skin corrosion/irritation:

Paraquat dichloride

Irritating to skin for rabbits.

Serious eye damage/irritation:

Paraquat dichloride

Irritating to eyes for rabbits.

Respiratory or skin sensitization:

Paraquat dichloride

Not skin sensitiser for guinea pigs.

Germ cell mutagenicity: No information available.

Carcinogenicity: No information available.

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Reproductive toxicity: No information available.

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity:

Paraquat dichloride

Birds: Acute oral LD₅₀ for Mallard ducks 75 mg/kg, Bobwhite quail 175 mg/kg.

LC₅₀ (diet) (5 d) for Bobwhite quail 981 mg/kg, Japanese quail 970 mg/kg, Mallard ducks 4048 mg/kg, Ring-necked pheasants 1468 mg/kg.

Fish: LC₅₀ (96 h) for Rainbow trout 26 mg/ℓ and Mirror carp 135 mg/ℓ.

Daphnia: EC₅₀ (48 h) 6.1 mg/ ℓ.

Algae: E_bC₅₀ (96 h) for green algae 0.10 mg/ ℓ,
E_rC₅₀ 0.28 mg/ ℓ.

Bees: LD₅₀ (120 h) oral 15 µg/bee, contact 70 µg/bee.

Worms: LC₅₀ (14 d) >1380 mg/kg soil.

Persistence and degradability:

Paraquat dichloride

In plants photochemical degradation occurs. Degradation products which have been isolated include 1-methyl-4-carboxypyridinium chloride and methylamine hydrochloride.

Bioaccumulative potential:

Paraquat dichloride

Does not bioaccumulate, with >90% of the dose eliminated in 72 hours.

Mobility in soil

Paraquat dichloride

Is rapidly and strongly absorbed to soil and sediment, resulting in complete deactivation. When absorbed, it is quickly degraded by soil micro-organisms. The potential risk to leach into groundwater is negligible.

Results of PBT& vPvB assessment:

No information available.

Other adverse effects:

No information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Consider suitable waste recycling, re-use or recovery options. Dispose of in accordance with municipal, provincial and national regulations. Waste Classification and Management Regulations (GN 634 of 2013). Dispose and or manage in accordance with the requirements contained in R634 Waste Classification & Management Regulations, R635 National

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Norms & Standards for the Assessment of Waste for Landfill Disposal and R636 National Norms & Standards for Disposal of Waste to Landfill.

Product/ packaging disposal:

Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

SECTION 14. TRANSPORT INFORMATION

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	3016	3016	3016
UN Proper shipping name:	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC
Transport hazard class:	6.1	6.1	6.1
Packaging group:	III	III	III
Marine pollutant:	Yes	Yes	Yes
Special precautions for user:	Toxic liquid	Toxic liquid	Toxic liquid
Transport in bulk according to MARPOL 73/78 Annex II and the IBC code	Not required	Not required	Not required

Inland waterways: Not required.

Emergency response information: No information.

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the mixture:

Relevant information regarding authorization: Occupational Health and Safety Act 1993. Regulation for Hazardous Chemical Agents, 2021. UN Recommendations on the Transport of Dangerous Goods Model Regulations Rev. 21 (2019), Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Rev 8, 2019.

ACGIH: American Conference of Governmental Industrial Hygienists (ACGIH)

Relevant information regarding restrictions: National Road Traffic Act, 1996 (ACT NO. 93 of 1996).

SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes. National Environmental Management: Waste Act 59 of 2008.

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP] and EU directives 67/548/EEC or EC 1999/45/EC

Other National regulations: National Road Traffic Act, 1996 (ACT NO. 93 of 1996).

SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes. National Environmental Management: Waste Act 59 of 2008.

Chemical Safety Assessment carried out? No

SECTION 16. OTHER INFORMATION

Indication of changes:

Updated statement for restricted use.

Relevant H statements number and full text):

STOT SE 3- Specific target organ toxicity single exposure (Category 3)

STOT RE 1- Specific target organ toxicity repeated exposure (Category 1)

Aquatic acute 1: Hazardous to the aquatic Environment (Acute 1)

Aquatic chronic 1: Hazardous to the aquatic Environment (Chronic 1)

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H225 Highly flammable liquid and vapour. H301 Toxic if swallowed. H302 Harmful if swallowed. H311 Toxic in contact with skin. H312 Harmful in contact with skin. H314 Causes serious skin burns and eye damage. H315 Causes skin irritations. H318 Causes serious eye damage. H319 Causes serious eye irritation. H330 Fatal if inhaled. H331 Toxic if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H372 Causes damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects

Training instructions:

Use as indicated on the label, special training may be required for application.

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

Notice to readers:

Employers should use this information only as a supplement to other information gathered by them and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.