

BOROCHEMIE	BOROCHEMIE (M) SDN. BHD. 200201013240 (580903-H)	Document No:	QR-LB-003
	Document Title: SAFETY DATA SHEET ACTIBOR 15G	Date Issued:	01-Jan-23
		Revision:	000

ACTIBOR15G	Safety Data Sheet
SECTION I - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION	
Product name: ACTIBOR15G Product use: Agricultural Micronutrient Ceramics, Detergent, Borosilicate glass insulation fibreglass Chemical formula: Na ₂ B ₄ O ₇ ·5H ₂ O Chemical name/synonyms: Sodium tetraborate pentahydrate, disodium tetraborate pentahydrate, borax pentahydrate, borax 5 Mol Chemical Family: Inorganic borates CAS Registry Number: 12179-04-3	MANUFACTURER: BOROCHEMIE(M) SDN BHD Unit No.12 No.3 Jalan Tun Teja 2, Industrial Park, 42000 Pelabuhan Klang Selangor, Darul Ehsan. Tel No: +603 3179 0799 Fax No: +603 3179 0643 Email: marketing@borochemie.com HEALTH EMERGENCIES: Website: www.borochemie.com
SECTION II - COMPOSITION / INFORMATION ON INGREDIENTS	
The product contains greater than 99.9 percent (%) borax pentahydrate Na ₂ B ₄ O ₇ ·5H ₂ O	
SECTION III - HAZARD IDENTIFICATION	
Classification of the substance according to GHS Reproductive Toxicant, Category 2 H 361d : Suspected of damaging the unborn child Eye irritant 2A H319: Causes serious eye irritation. Acute Oral 5 H303: May be harmful if swallowed. GHS Label element, including precautionary statements	
 Warning	 Warning
P201: Obtain special instruction before use. P202: Do not handle until all safety precautions have been read and understood. P264: Wash eyes thoroughly after handling. P280: Wear protective glove/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. P337+P313: If eye irritation persists: Get medical advice/attention. P308 + P313: if exposed or concerned: get medical advice/attention P312: call a POISON CENTER/doctor/physician if you feel unwell P405: Store locked up.	
EMERGENCY OVERVIEW: Actibor15G is a white, odorless, powdered substance that is not flammable, combustible, or explosive and has low acute oral and dermal toxicity. POTENTIAL ECOLOGICAL EFFECTS: Large amounts of Actibor15G can be harmful to plants and other species. Therefore, releases to the environment should be minimized. POTENTIAL HEALTH EFFECTS: Inhalation is the most significant route of exposure in occupational and other settings. Dermal exposure is not usually a concern because Actibor15G is poorly absorbed through intact skin. INHALATION: Occasional mild irritation effects to nose and throat may occur from inhalation of Actibor15G dust at levels greater than 10 mg/m ³ . EYE CONTACT: Actibor15G is non-irritating to eyes in normal use. SKIN CONTACT: Actibor15G does not cause irritation.	INGESTION: Products containing Actibor15G are not intended for ingestion. Actibor15G has a low acute toxicity. Small amounts (e.g., a teaspoonful) swallowed accidentally are not likely to cause effects; swallowing amounts larger than that may cause gastrointestinal symptoms. CANCER: Actibor15G is not a known carcinogen. SIGNS AND SYMPTOMS OF EXPOSURE: Symptoms of accidental over-exposure to Actibor15G have been associated with ingestion or absorption through large areas of damaged skin. These may include nausea, vomiting and diarrhea, with delayed effects of skin redness and peeling

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SECTION VI - ACCIDENTAL RELEASE MEASURES

General: Actibor15G is a water-soluble white powder that may, at high concentrations cause damage to trees or vegetation by root absorption.

Land spill: Vacuum, Shovel or sweep up Actibor15G and place in containers for disposal in accordance with applicable local regulations. Avoid contamination of water bodies during cleanup and disposal.

Spillage into water: Where possible, remove any intact containers from the water. Advise local water authority that none of the affected water should be used for irrigation or for the abstraction of potable water until natural dilution returns the boron value to its normal environmental background level.

SECTION VII - HANDLING AND STORAGE

General: No special handling precautions are required, but dry, indoor storage is recommended. To maintain package integrity and to minimize caking of the product, bags should be handled on a first-in, first-out basis. Good housekeeping procedures should be followed to minimize dust generation and accumulation.

Storage temperature: Ambient
Storage pressure: Atmospheric
Special sensitivity: Moisture (caking)

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls: Use local exhaust ventilation to keep airborne concentrations of Actibor15G dust below permissible exposure levels.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White, Odorless, Crystalline Solid
Specific gravity: 1.81
Vapor pressure: Negligible @ 20°C
Molecular weight: 291.24
Solubility in water: 3.8% @ 20°C; 51.2% @ 100°C

Melting point: 200°C (heated in closed space)
pH @ 20°C: 9.3 (3.0 % solution)
Flash Point: Non flammable
Explosion Hazard: Non explosive

SECTION X - STABILITY AND REACTIVITY

General: Actibor15G is a stable product, but when heated it loses water, eventually forming anhydrous borax (Na₂B₄O₇).
Hazardous decomposition: None.

Incompatible materials and conditions to avoid: Reaction with strong reducing agents, such as metal hydrides or alkali metals, will generate hydrogen gas, which could create an explosive hazard.

SECTION XI - TOXICOLOGICAL INFORMATION

Acute toxicity

Ingestion: Low acute oral toxicity; LD50 in rats is 3,200 to 3,400 mg/kg of body weight.
Skin/dermal: Low acute dermal toxicity; LD50 in rabbits is greater than 2,000 mg/kg of body weight. Actibor15G is poorly absorbed through intact skin.

Inhalation: Low acute inhalation toxicity; LC50 in rats is greater than 2.0 mg/L (or g/m³).

Skin irritation: Non-irritant.

Eye irritation: Draize test in rabbits produced eye irritation effects. Fifty years of occupational exposure to Actibor15G indicates no adverse effects on human eye. Therefore, Actibor15G is not considered to be a human eye irritant in normal industrial use.

Sensitization: Actibor15G is not a skin sensitizer.

Other:

Human Data

Human epidemiological studies show no increase in pulmonary disease in occupational populations with chronic exposures to boric acid dust and sodium borate dust. Recent epidemiological studies under the conditions of normal occupational exposure to borate dust indicated no effect on fertility.

SECTION XII - ECOLOGICAL INFORMATION

Ecotoxicity data

General: Boron (B) is the element in sodium tetraborate pentahydrate (Actibor15G) which is used by convention to report borate product ecological effects. It occurs naturally in sea-water at an average concentration of 5 mg B/L and generally occurs in fresh water at concentrations up to 1 mg B/L. In dilute aqueous solutions the predominant boron species present is undissociated boric acid. To convert sodium tetraborate pentahydrate into the equivalent boron (B) content, multiply by 0.1484.

Phytotoxicity: Boron is an essential micronutrient for healthy growth of plants; however, it can be harmful to boron sensitive plants in high quantities. Care should be taken to minimize the amount of Actibor15G released to the environment.

Algal toxicity:

Green algae, *Scenedesmus subspicatus*
96-hr EC10 = 24 mg B/L†

Invertebrate toxicity:

Daphnids, *Daphnia magna* straus
24-hr EC50 = 242 mg B/L†
Test substance: † sodium tetraborate

Fish toxicity:

Sea-water:

Dab, *Limanda limanda*
96-hr LC50 = 74 mg B/L†

Fresh water:

Rainbow trout, *S. gairdneri* (embryo-larval stage)
24-day LC50 = 88 mg B/L†
32-day LC50 = 54 mg B/L†
Goldfish, *Carassius auratus* (embryo-larval stage)
7-day LC50 = 65 mg B/L†
3-day LC50 = 71 mg B/L†

Environmental fate data

Persistence/degradation: Boron is naturally occurring and ubiquitous in the environment. Actibor15G decomposes in the environment to natural borate.

Octanol/water partition coefficient: No value. In aqueous solution sodium tetraborate pentahydrate is converted substantially into undissociated boric acid.

Soil mobility: Actibor15G is soluble in water and is leachable through normal soil.

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SECTION XIII - DISPOSAL CONSIDERATIONS

Disposal guidance: Small quantities of Actibor15G can usually be disposed of at landfill sites. No special disposal treatment is required but local authorities should be consulted about any specific local requirements. Tonnage quantities of product should if possible be used for an appropriate application

SECTION XIV - TRANSPORT INFORMATION

ACTIBOR15G has no UN number and is not regulated under international rail, road, water or air transport regulations.

SECTION XV-REGULATORY INFORMATION

Chemical Inventory Listing

U.S.EPA TSCA Inventory 1330-43-4

Japanese

MITI (1)-69

Canadian DSL 1330-43-4

EINECS

215-540-4

South Korea 1-760

Clean Air Act (Montreal Protocol)

ACTIBOR 15G was not manufactured with and does not contain any Class I and Class II ozon depleting substances

SECTION XVI- OTHER INFORMATION

For general information on the toxicology of borates see ECETOC Technical Report No. 63 (1995); Patty's Industrial Hygiene and Toxicology, 4th Edition Vol. II, (1994) Chap. 42, 'Boron'.

For further information contact

BOROCHEMIE (M) SDN. BHD.

Health Emergencies

+603 3179 0799

This MSDS summarises BRCM's best knowledge of the health and safety hazard information of the selected substance and how to safely handle the selected substance in the workplace however BRCM expressly disclaims that the MSDS is a representation or guarantee of the chemical specifications for the substance. Each user should read the MSDS and consider the information in the context of how the selected substance will be handled and used in the workplace including its use in conjunction with other substances.