



SAFETY DATA SHEET

TOTALLY BOOST (TBP)

Infosafe No.: LQ9FQ
ISSUED Date : 17/05/2019
ISSUED by: WORX PLUS UNIT TRUST

1. IDENTIFICATION

GHS Product Identifier

TOTALLY BOOST (TBP)

Company Name

WORX PLUS UNIT TRUST (ABN 19 445 818 014)

Address

5/176 Canterbury Rd Bayswater Nth
VIC Australia

Telephone/Fax Number

Tel: 1300 897 873

Emergency phone number

131 126

Recommended use of the chemical and restrictions on use

Detergent ingredient; adhesive; binder; feedstock silica source; general chemical.

Disclaimer

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Worx Plus Unit Trust, makes no representations as to the completeness or accuracy thereof. Information is supplied on the conditions that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Worx Plus Unit Trust or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

2. HAZARD IDENTIFICATION

GHS classification of the substance/mixture

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety Regulations, Australia.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Skin Corrosion/Irritation: Category 2

Eye Damage/Irritation: Category 1

STOT Single Exposure: Category 3 (respiratory tract irritation)

Signal Word (s)

DANGER

Hazard Statement (s)

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

Pictogram (s)

Corrosion, Exclamation mark

**Precautionary statement – Prevention**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash contaminated skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement – Response

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/physician.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

Precautionary statement – Storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Precautionary statement – Disposal

P501 Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Name	CAS	Proportion
Potassium silicate	1312-76-1	30-60 %
Ingredients determined not to be hazardous, including water		Balance

4. FIRST-AID MEASURES

Inhalation

If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

Ingestion

Do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.

Skin

Remove all contaminated clothing immediately. Wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse or discard. Seek medical attention.

Eye contact

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek immediate medical attention.

First Aid Facilities

Eyewash, safety shower and normal washroom facilities.

Advice to Doctor

Treat symptomatically.

Other Information

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use appropriate fire extinguisher for surrounding environment. Compatible with dry chemical water spray, regular foam and carbon dioxide fire extinguishing media.

Hazards from Combustion Products

Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including carbon monoxide, carbon dioxide, oxides of nitrogen.

Specific Hazards Arising From The Chemical

This product is non combustible. However, following evaporation of aqueous component under fire conditions, the non-aqueous component may decompose and/or burn. Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminium, tin, lead, and zinc.

Decomposition Temperature

Water Boils off at 105 to 108°C

Precautions in connection with Fire

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location,

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Wear appropriate personal protective equipment and clothing to prevent exposure. Increase ventilation. If possible contain the spill. As a water based product, if spilt on electrical equipment the product will cause short-circuits. Place inert absorbent material onto spillage. Collect the material and place into a suitable labelled container. Do not dilute material but contain. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

Spilled material is very slippery. Only water will evaporate from a spill of this material. Dries to form glass film which can easily cut skin. Sinks and mixes with water. High pH of this material is harmful to aquatic life.

Small spill: Mop up and neutralize liquid, then discharge to sewer in accordance with federal, state and local regulations or permits.

Large spill cleanup: Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk through spilled material. Stop leak if you can do so without risk. Prevent runoff from entering into storm sewers and ditches which lead to natural waterways. Isolate, dike and store discharged material, if possible. Use sand or earth to contain spilled material. If containment is impossible, neutralize contaminated area and flush with large quantities of water.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid inhalation of vapours and mists, and skin or eye contact. Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of mists or vapours in the work atmosphere. Maintain high standards of personal hygiene i.e. Washing hands prior to eating, drinking, smoking or using toilet facilities.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area, out of direct sunlight. Protect from freezing. Store in suitable, labelled containers. Keep containers tightly closed. Store away from incompatible materials: acids, reactive metals, ammonium salts and foodstuffs. Ensure that storage conditions comply with applicable local and national regulations. Protect from freezing.

Corrosiveness

Some corrosive effects on Aluminium, Copper, Tin, Zinc, Lead etc.

Storage Temperatures

Storage temperature 0-95°C. Loading temperature 45-95 °C.

Recommended Materials

Store in clean steel or plastic containers. Mild steel is the most suitable material of construction for drums, tanks, valves, pipework, etc. Concrete storage tanks can be used but must be strong enough to hold the weight of Potassium Silicate solution to be stored and thick enough to prevent seepage of water.

Unsuitable Materials

Do not store in aluminum, fiberglass, copper, brass, zinc or galvanized containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values

No exposure standards have been established for the mixture. However, over-exposure to some chemicals may result in enhancement of pre-existing adverse medical conditions and/or allergic reactions and should be kept to the least possible levels.

Biological Limit Values

No biological limits allocated.

Appropriate Engineering Controls

This substance is hazardous and should be used with a local exhaust ventilation system, drawing vapours away from workers' breathing zone. If the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye Protection

Safety glasses with full face shield should be used. Eye protection devices should conform to relevant regulations. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 (series) - Eye Protectors for Industrial Applications.

Hand Protection

Wear gloves of impervious material such as plastic or rubber. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Body Protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

9. PHYSICAL AND CHEMICAL PROPERTIES

Properties	Description	Properties	Description
Form	Liquid	Appearance	Thick liquid.
Colour	Clear to hazy, colorless	Odour	Odorless
Decomposition Temperature	Water Boils off at 105 to 108°C	Melting Point	0°C approx.
Boiling Point	105 to 108°C	Solubility in Water	Soluble
Specific Gravity	1.2 to 1.7 (typical range)	pH	11 to 13 (of the concentrate)
Vapour Pressure	Not available	Vapour Density (Air=1)	Not applicable
Evaporation Rate	Not available	Odour Threshold	Not available
Viscosity	Not available	Volatile Component	30-60%
Partition Coefficient: n-octanol/water	Not available	Flash Point	Not available
Flammability	Non flammable	Auto-Ignition Temperature	Not available
Flammable Limits - Lower	Not available	Flammable Limits - Upper	Not available

Other Information

Chemical Formula: Varying proportions of potassium oxide, silica and water depending on the grade. Mean weight ratio for SiO₂/K₂O: is from 1.5 to 3.5.

10. STABILITY AND REACTIVITY

Reactivity

Reacts with incompatible materials.

Chemical Stability

Stable under normal conditions of storage and handling. Absorbs Carbon Dioxide on exposure to air, which results in the deposition of Insoluble Silica.

Conditions to Avoid

Extremes of temperature and direct sunlight. Absorbs Carbon Dioxide on exposure to air, which results in the deposition of Insoluble Silica. Protect from freezing.

Incompatible materials

Strong Acids.

Hazardous Decomposition Products

If Overheated: The solution will boil and irritating Potassium Silicate containing mists will be released.

Possibility of hazardous reactions

Flammable hydrogen gas will form on reaction with aluminium, copper, zinc etc. Gels and generates heat when mixed with acid. May react with ammonium salts resulting in evolution of ammonia gas.

Hazardous Polymerization

Will not occur.

Other Information

Potassium Silicate Solutions are strongly alkaline and are not compatible with aluminium, copper, brass, bronze, zinc, tin and lead. Can etch glass if not promptly removed.

11. TOXICOLOGICAL INFORMATION

Toxicology Information

No toxicity data available for this material.

Acute Toxicity - Oral

The acute oral toxicity of this product has not been tested. When chemically similar Sodium Silicates were tested on a 100% solids basis, their single dose acute oral LD50 in rats ranged from 1280 mg/kg to 3200 mg/kg. The acute oral lethality resulted from nonspecific causes. Product is estimated to have an Acute Oral Toxicity LD50 (rat): >2000 mg/kg.

Ingestion

Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

Inhalation

Inhalation of product vapours causes irritation of the mucous membranes and respiratory system. May cause pulmonary oedema and laryngeal spasms.

Skin

Causes skin irritation. Skin contact will cause redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.

When tested for primary skin irritation potential, similar potassium silicate solution produced no irritation to intact skin, but well defined irritation to abraded skin. Human experience confirms that irritation occurs when this material gets on clothes at the collar, cuffs or other areas where abrasion may occur.

Eye

Causes eye damage. Eye contact will cause stinging, blurring, tearing, severe pain and possible burns, necrosis, permanent damage and blindness.

This material has not been tested for primary eye irritation. However, on the basis of its similarity to Sodium Silicate Solutions in composition and alkalinity it is regarded as a severe eye irritant.

Respiratory sensitisation

Not expected to be a respiratory sensitiser.

Skin Sensitisation

Not expected to be a skin sensitiser.

Germ cell mutagenicity

Not considered to be a mutagenic hazard.

The mutagenic potential of this material has not been tested. Chemically similar Sodium Silicate was not mutagenic to the bacterium E. Coli when tested in a mutagenicity bioassay. There are no known reports of carcinogenicity of Potassium Silicates. Frequent ingestion over extended periods of time of gram quantities of silicates is associated with the formation kidney stones and other siliceous urinary calculi in humans.

Carcinogenicity

Not considered to be a carcinogenic hazard.

Reproductive Toxicity

Not considered to be toxic to reproduction.

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

Not expected to cause toxicity to a specific target organ.

Aspiration Hazard

Not expected to be an aspiration hazard.

Other Information

Subchronic Data: The sub-chronic toxicity of this material has not been tested. In a study of rats fed chemically similar Sodium Silicate in drinking water for three months, at 200, 600 and 1800 ppm, changes were reported in the blood chemistry of some animals, but no specific changes to the organs of the animals due to Sodium Silicate administration were observed in any of the dosage groups. Another study reported adverse effects to the kidneys of dogs fed Sodium Silicate in their diet at 2.4g/kg/day for 4 weeks, whereas rats fed the same dosage did not develop any treatment-related effects. Decreased numbers of births and survival to weaning was reported for rats fed Sodium Silicate in their drinking water at 600 and 1200 ppm.

12. ECOLOGICAL INFORMATION

Ecotoxicity

No ecological data available for this material. Avoid contaminating waterways. Soluble in water. Sinks and mixes with water. Only water will evaporate from this material.

The ecotoxicity of Potassium Silicate has not been tested. The following data is reported for chemically similar Sodium Silicates on a 100% solids basis: A 96 hour median tolerance for fish (*Gambusia affinis*) of 2320 ppm; a 96 hour median tolerance for water fleas (*Daphnia magna*) of 247 ppm; a 96 hour median tolerance for snail eggs (*Lymnea*) of 632 ppm; and a 96 hour median tolerance for Amphipoda of 160 ppm.

Persistence and degradability

This material is not persistent in aquatic systems, but its high pH when undiluted or un-neutralized is acutely harmful to aquatic life. Diluted material rapidly depolymerizes to yield dissolved silica in a form that is indistinguishable from natural dissolved silica. It does not contribute to BOD. This material does not bio-accumulate except in species that use silica as a structural material such as diatoms and siliceous sponges. Neither silica nor potassium will appreciably bio-concentrate up the food chain.

Mobility

Expected to be mobile in soil. Diluted material rapidly depolymerizes to yield dissolved silica in a form that is indistinguishable from natural dissolved silica.

Bioaccumulative Potential

Not available

Other Adverse Effects

Not available

Environmental Protection

Prevent this material entering waterways, drains and sewers.

13. DISPOSAL CONSIDERATIONS

Disposal considerations

The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations.

14. TRANSPORT INFORMATION

Transport Information

Road and Rail Transport:

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Air Transport (ICAO/IATA):

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

Marine Transport (IMO/IMDG):

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

U.N. Number

None Allocated

UN proper shipping name

None Allocated

Transport hazard class(es)

None Allocated

IMDG Marine pollutant

No

Transport in Bulk

Not available

Special Precautions for User

Not available

15. REGULATORY INFORMATION

Regulatory information

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Poisons Schedule

S5

16. OTHER INFORMATION

Date of preparation or last revision of SDS

SDS Created: May 2019

References

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.

Standard for the Uniform Scheduling of Medicines and Poisons.

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Workplace exposure standards for airborne contaminants.

Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).

Globally Harmonised System of classification and labelling of chemicals.

Contact Person/Point

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END OF SDS

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