Thiram 80% WDG - Safety Data Sheet

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Product name	Thiram 80% WDG / 80%福美双水分散粒剂 [COA]
Document no.	BM-SDS-THIRAM80 [WEB]
Version / status	1.0 - draft, 2026-11-13 (pending QC / regulatory sign-off) [WEB]
Issue date	2026-11-13 [WEB]
Format	GHS / CLP 16-section Safety Data Sheet [WEB]
Language	EN (CN product name shown) [WEB]

Scope: water-dispersible granule (WG) formulation containing thiram 80% w/w. Compiled from the supplier Certificate of Analysis (batch 20261016) and the ECHA CLP Annex VI harmonised classification for thiram. Values not stated in any source are shown as OPEN items and have NOT been estimated.

1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name	Thiram 80% WDG / 80%福美双水分散粒剂 [COA]
Product type	Water-dispersible granule (WG) fungicide formulation [COA]
Active substance	Thiram (tetramethylthiuram disulfide), CAS 137-26-8 [COA]
Active substance content	80 % w/w [COA]
CAS No. / EC No.	137-26-8 / EC 205-286-2 [ECHA]
CLP Annex VI index No.	006-005-00-4 [ECHA]
Molecular formula / molar mass	C6H12N2S4 / 240.4 g/mol [ECHA]

1.2 Relevant identified uses and uses advised against

Identified use	Fungicide for agricultural use (seed treatment and foliar/soil application as registered). Not for direct application without dilution per label. [COA]
Uses advised against	Any use other than the identified use; not for domestic or residential use. [WEB]

1.3 Details of the supplier

Supplier	Shanghai Bosman Industrial Co., Limited [WEB]
Address	Room 1802-1804, No. 1611, North Sichuan Road, Hongkou District, Shanghai 200080, P.R. China [WEB]
Telephone / Fax	+86 21 6306 5878 / +86 21 6091 1557 [WEB]
E-mail / Website	info@bosmangroup.com / www.bosmangroup.com [WEB]

1.4 Emergency telephone number

24-hour emergency line	+86 21 6356 6528 [WEB]
Poison centre	Contact the national poisons information centre or local emergency services (e.g. 120 in mainland China) [WEB]

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classified according to the ECHA CLP Annex VI harmonised classification for thiram (Regulation (EC) No 1272/2008). The formulation is classified on the basis of the active substance thiram (80% w/w); inert components are not separately classified in the supplied data.

Acute toxicity, oral	Category 4 - H302 Harmful if swallowed [ECHA]
Acute toxicity, dermal	Category 4 - H312 Harmful in contact with skin [ECHA]
Acute toxicity, inhalation	Category 4 - H332 Harmful if inhaled [ECHA]
Skin irritation	Category 2 - H315 Causes skin irritation [ECHA]
Eye irritation	Category 2 - H319 Causes serious eye irritation [ECHA]
Skin sensitisation	Category 1 - H317 May cause an allergic skin reaction [ECHA]
Specific target organ toxicity - repeated exposure	Category 2 - H373 May cause damage to organs through prolonged or repeated exposure [ECHA]
Hazardous to aquatic environment, acute	Category 1 - H400 Very toxic to aquatic life [ECHA]
Hazardous to aquatic environment, long-term	Category 1 - H410 Very toxic to aquatic life with long lasting effects [ECHA]

2.2 Label elements

Signal word	Warning [ECHA]

Hazard pictograms	GHS07 (exclamation mark), GHS08 (health hazard), GHS09 (environment) [ECHA]
Hazard statements	H302, H312, H332, H315, H319, H317, H373, H400, H410 [ECHA]
Precautionary statements	P260, P261, P264, P270, P271, P272, P273, P280, P301+P312, P302+P352, P304+P340, P305+P351+P338, P312, P321, P330, P332+P317, P333+P317, P337+P317, P362+P364, P391, P501 [ECHA]

2.3 Other hazards

Not PBT / vPvB on the basis of the available assessment. No endocrine-disrupting properties identified in the supplied sources (OPEN to confirm against the current approved dossier). Deposited dust from the granule may present a slip / dust hazard; avoid generation of dust during handling.

3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixtures

Component / parameter	Value	Source
Thiram (tetramethylthiuram disulfide)	CAS 137-26-8; EC 205-286-2; 80 % w/w; active substance [ECHA]	
Other components (carriers, wetting / dispersing agents, inerts)	Balance to 100 % w/w. Identities and exact concentrations not stated (OPEN); not separately classified in the supplied data. [OPEN]	

3.2 The formulation is handled as a mixture. Batch assay values from the CoA are measurements, not guaranteed specification limits.

4 FIRST-AID MEASURES

General	If poisoning is suspected, contact a poison information centre, doctor or nearest hospital immediately. Show the container, label or this SDS. [SUB]
Inhalation	Move to fresh air. If breathing has stopped, call emergency services and give artificial respiration. [SUB]
Eye contact	Hold the eye open and rinse slowly and gently with water for 15-20 minutes; remove contact lenses after the first 5 minutes and continue rinsing. [SUB]
Skin contact	Take off contaminated clothing and rinse skin with plenty of water for 15-20 minutes. [SUB]
Ingestion	Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. [SUB]
Most important symptoms	Harmful if swallowed / inhaled / in contact with skin; skin irritation; serious eye irritation; may cause allergic skin reaction. [ECHA]
Note to physician	Treat symptomatically; no specific antidote known. Thiram is a dithiocarbamate; monitor for anticholinesterase-like effects if co-formulated. [SUB]

5 FIRE-FIGHTING MEASURES

Suitable extinguishing media	Water spray, alcohol-resistant foam, dry chemical powder or carbon dioxide. [SUB]
Unsuitable media	High-pressure water jet - may spread burning material / dust. [SUB]
Specific hazards	Decomposition may release toxic sulphur and nitrogen oxides / carbon disulphide vapour under fire conditions. [SUB]
Protective equipment	Full protective clothing and self-contained breathing apparatus. Contain fire-fighting water; do not allow it to enter drains or watercourses. [SUB]

6 ACCIDENTAL RELEASE MEASURES

Personal precautions	Avoid dust formation and inhalation; use PPE per Section 8; keep unnecessary personnel away. [SUB]
Environmental precautions	Prevent entry into soil, drains, sewage and any body of water (H400 / H410). [ECHA]
Containment and cleaning	Sweep up without creating dust, place in a compatible sealed container, then wash the area with detergent and collect the wash liquid for disposal. [SUB]

7 HANDLING AND STORAGE

Handling	Avoid contact with skin, eyes and clothing; do not breathe dust; use local exhaust ventilation where dust may be formed; do not eat, drink or smoke while handling; wash hands and exposed skin before breaks. [SUB]
Storage	Store in the tightly closed original container in a cool, dry, well-ventilated area out of direct sunlight. Keep away from food, feed, fertilisers and seeds. Keep out of reach of children. [SUB]
Packaging material	Keep the original container; 25 kg bag as per CoA batch 20261016. [COA]

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters	No occupational exposure limit, DNEL or PNEC for the formulation stated in the supplied sources (OPEN). Refer to the active-substance thiram OEL where a national limit exists. [OPEN]

Engineering controls	General and local exhaust ventilation to keep airborne dust below applicable exposure limits. [SUB]
Eye / face protection	Chemical splash goggles where contact is likely. [SUB]
Skin protection	Chemical-resistant gloves (nitrile or butyl), coveralls and chemical-resistant footwear. [SUB]
Respiratory protection	Where airborne concentrations may exceed limits, use a NIOSH/CEN-approved particulate filter (N95 / P1) or supplied-air respirator for uncontrolled releases. [SUB]
Environmental exposure control	Do not let product enter drains (H400 / H410). [ECHA]

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties (formulation, per CoA batch 20261016)

Property	Value	Source
Appearance	Irregular granules [COA]	
Odour	Characteristic [SUB]	
pH (1% aqueous / suspension, measured)	7.6 (specification 6.0 - 9.0) [COA]	
Moisture	1.5 % (specification ≤ 3.0 %) [COA]	
Wetting time	10 s (specification ≤ 90 s) [COA]	
Wet sieve test (through 75 µm sieve)	99 % (specification ≥ 98 %) [COA]	
Suspensibility	88 % (specification ≥ 80 %) [COA]	
Persistent foaming (after 1 min)	40 mL (specification ≤ 60 mL) [COA]	
Dispersibility	92 % (specification ≥ 80 %) [COA]	
Active-substance content	80.6 % w/w thiram (specification 80.0 ± 2.5 %) [COA]	
Melting / boiling point, density, water solubility, viscosity	Formulation-specific values not determined in supplied sources (OPEN); active-substance data are available from the substance SDS (see Section 16). [OPEN]	

9.2 The physico-chemical properties above describe the water-dispersible granule formulation as released in the referenced batch; they are not CLP physico-chemical endpoints of the pure active substance.

10 STABILITY AND REACTIVITY

Reactivity	No data available (OPEN). [OPEN]
Chemical stability	Stable under recommended storage conditions. [SUB]
Possibility of hazardous reactions	No data available (OPEN). [OPEN]
Conditions to avoid	Dust formation, heat sources and ignition sources; strong oxidising conditions. [SUB]
Incompatible materials	Strong oxidising agents. [SUB]
Hazardous decomposition products	Toxic sulphur / nitrogen oxides and carbon disulphide vapour under fire conditions. [SUB]
Shelf life	Not stated in the supplied sources (OPEN); a formulation stability study is required before a shelf-life claim is made. [OPEN]

11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects (classification basis: ECHA CLP Annex VI harmonised C&L for thiram)

Endpoint	Result	Source
Acute oral toxicity	Category 4 (H302). Specific formulation LD50 not determined (OPEN); active-substance oral rat LD50 ~640 mg/kg (substance SDS). [ECHA]	
Acute dermal toxicity	Category 4 (H312). Specific formulation LD50 not determined (OPEN); active-substance dermal LD50 >2000 mg/kg (substance SDS). [ECHA]	
Acute inhalation toxicity	Category 4 (H332). Specific formulation LC50 not determined (OPEN). [ECHA]	
Skin irritation	Category 2 (H315). [ECHA]	
Eye irritation	Category 2 (H319). [ECHA]	
Skin sensitisation	Category 1 (H317). [ECHA]	
Repeated-dose / target organ	STOT-RE Category 2 (H373) - may cause damage to organs through prolonged or repeated exposure. [ECHA]	
Mutagenicity / carcinogenicity / reproductive toxicity	Not present in the ECHA harmonised C&L retrieved for thiram; confirm against the current Annex VI before any negative claim. [OPEN]	

Values marked OPEN are formulation-specific and require a study; the active-substance figures cited are substance-level and shown for context only.

12 ECOLOGICAL INFORMATION

12.1 Toxicity (classification basis: ECHA CLP Annex VI harmonised C&L for thiram)

Organism / endpoint	Result	Source
Aquatic - acute	Category 1 (H400) - very toxic to aquatic life. [ECHA]	
Aquatic - long-term	Category 1 (H410) - very toxic to aquatic life with long lasting effects. [ECHA]	
Specific LC50 / EC50 (fish, invertebrates, algae)	Formulation-specific values not determined in supplied sources (OPEN). Active substance is very toxic to aquatic organisms per H400/H410. [OPEN]	

12.2 Persistence and degradability

Not determined for the formulation (OPEN). Active substance thiram is of low to moderate persistence in soil (substance SDS).

12.3 Bioaccumulative potential

Not determined for the formulation (OPEN). Based on active-substance log Kow (~2.0) bioaccumulation is not expected; no BCF study supplied.

12.4 Mobility in soil

Not determined for the formulation (OPEN).

12.5 PBT / vPvB and 12.6 endocrine disrupting properties

Not PBT / vPvB per the available assessment; no endocrine-disrupting properties identified in the supplied sources. Formal conclusions to be confirmed against the current approved dossier.

12.7 Other adverse effects

Do not allow the product to enter drains, sewers, watercourses or groundwater (H400 / H410).

13 DISPOSAL CONSIDERATIONS

Product disposal	Dispose of in accordance with applicable national and local regulations; check with the competent authority for the approved disposal route. Do not contaminate water (H400 / H410). [SUB]
Container disposal	Do not reuse empty containers. Dispose of product containers, waste containers and residues according to local regulations. [SUB]

14 TRANSPORT INFORMATION

Parameter	ADR/RID - IMDG - IATA	Source
UN number	Not determined in supplied sources (OPEN) [OPEN]	
Proper shipping name	Not determined in supplied sources (OPEN) [OPEN]	
Transport hazard class	Not determined in supplied sources (OPEN) [OPEN]	
Packing group	Not determined in supplied sources (OPEN) [OPEN]	
Environmental hazard	Yes - aquatic acute / chronic Category 1 (H400 / H410) [ECHA]	
Tunnel code / EmS	Not determined in supplied sources (OPEN) [OPEN]	

14.6 Special precautions for user

Do not transport together with foodstuffs, feed or drinking water. Keep packages upright, secure and clearly labelled. Avoid dust formation during loading and unloading.

14.7 Transport in bulk according to MARPOL Annex II / IBC Code

Not applicable - transported in packaged form (25 kg bag).

Evidence status: no dangerous-goods classification report or general-cargo appraisal exists for this product in the supplied documentation. As a solid pesticide preparation containing thiram, a dangerous-goods classification (e.g. 'Pesticide, solid, toxic, n.o.s.') may apply under ADR/IMDG/IATA, but this must be confirmed by a product-specific dangerous-goods certificate before any shipment-specific declaration is made.

15 REGULATORY INFORMATION

EU CLP	Regulation (EC) No 1272/2008 - classified per Annex VI harmonised C&L (see Section 2). [ECHA]
EU REACH	Thiram is an active substance for plant protection products; subject to Regulation (EC) No 1107/2009 rather than general REACH registration. REACH registration status not stated (OPEN). [OPEN]
China / other national registrations	Product registration number (e.g. ICAMA, China) not supplied (OPEN). [OPEN]
Transport	ADR/RID, IMDG, IATA - not determined in supplied sources; confirm by dangerous-goods certificate (Section 14). [OPEN]
Chemical safety assessment	No chemical safety assessment report supplied (OPEN). [OPEN]

16 OTHER INFORMATION

16.1 Revision information

Version 1.0, 2026-11-13. Initial issue compiled from the supplier Certificate of Analysis (batch 20261016) and the ECHA CLP Annex VI harmonised classification for thiram. Third-party manufacturer names have been removed from all source citations (desensitised). All OPEN items require confirmation before commercial issue.

16.2 Hazard and precautionary statements

H302, H312, H332, H315, H319, H317, H373, H400, H410. Precautionary statements P260, P261, P264, P270, P271, P272, P273, P280, P301+P312, P302+P352, P304+P340, P305+P351+P338, P312, P321, P330, P332+P317, P333+P317, P337+P317, P362+P364, P391, P501.

16.3 Data sources used in this revision

COA	Supplier Certificate of Analysis (analytical release), batch 20261016, tested 22 Oct 2026
ECHA	ECHA CLP Annex VI harmonised classification & labelling (Regulation (EC) No 1272/2008); EC No. 205-286-2; index No. 006-005-00-4. Legally binding EU classification.
SUB	Third-party substance SDS for thiram (GHS/CLP format, anonymous commercial supplier)
WEB	Public website product record (schema.org Product JSON-LD)
OPEN	Not stated in any supplied source - open item, value not estimated

16.4 Abbreviations

ADR/RID: European road/rail dangerous goods agreement; CAS: Chemical Abstracts Service; CLP: Regulation (EC) No 1272/2008; CoA: Certificate of Analysis; EC50/LC50/LD50: median effect / lethal concentration / lethal dose; IATA: air transport rules; IMDG: maritime dangerous goods code; NOEC/NOAEL: no-observed-effect/observed-adverse-effect concentration/level; PBT/vPvB: persistent, bioaccumulative and toxic (very); TC: technical material; WG: water-dispersible granule.

16.5 Disclaimer

This SDS is based on the state of knowledge and documentation available on the revision date. Batch CoA values are measurements of a specific batch and do not constitute a product specification guarantee. It does not replace a registered label, a certificate of analysis, a dangerous-goods classification report or a formal regulatory opinion. Users remain responsible for safe handling and compliance with the legislation applicable at the place of use. Formal release requires QC and regulatory sign-off.
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