



PBW

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758.
Issue date: 4/7/2022 Revision date: 4/7/2022 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : PBW

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Industrial use
Use of the substance/mixture : Cleaner

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

Five Star Chemicals & Supply, LLC.
6870 W. 52nd Ave. Suite 205.
Arvada, CO 80002 - USA
T +1-303-287-0186

Distributor

Five Star Chemicals & Supply, LLC
Unit 5
Flanders Industrial Estate
Hedge End
SO30 2FZ
02039 151 930

1.4. Emergency telephone number

Emergency number : International (Infotrac): +1 (800) 535-5053

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin Irrit. 2 H315
Eye Irrit. 2 H319

Full text of hazard classes, H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) : Warning
Hazard statements (CLP) : H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
Precautionary statements (CLP) : P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves, eye protection.
P337+P313 - If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Disodium carbonate	(CAS-No.) 497-19-8 (EC-No.) 207-838-8 (EC Index-No.) 011-005-00-2 (REACH-no) 01-2119485498-19-XXXX	40 – 50	Eye Irrit. 2, H319
Sodium percarbonate	(CAS-No.) 15630-89-4 (EC-No.) 239-707-6 (REACH-no) 01-2119457268-30-XXXX	20 – 30	Ox. Sol. 2, H272 Acute Tox. 4 (Oral), H302 (ATE=1034 mg/kg bodyweight) Eye Dam. 1, H318
Tetrasodium EDTA	(CAS-No.) 64-02-8 (EC-No.) 200-573-9 (EC Index-No.) 607-428-00-2 (REACH-no) 01-2119486762-27-XXXX	5 – 10	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 (ATE=1210 mg/kg bodyweight) Skin Irrit. 2, H315 Eye Irrit. 2, H319
Sodium metasilicate	(CAS-No.) 6834-92-0 (EC-No.) 229-912-9 (EC Index-No.) 014-010-00-8 (REACH-no) 01-2119449811-37-XXXX	1 – 5	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335
Glycine, N-(carboxymethyl)-N-[2-[(carboxymethyl)amino]ethyl]-, trisodium salt	(CAS-No.) 19019-43-3 (EC-No.) 606-202-0	0.1 – 1	Eye Irrit. 2, H319
Nitrilotriacetic acid trisodium salt	(CAS-No.) 5064-31-3 (EC-No.) 225-768-6 (EC Index-No.) 607-620-00-6	0.1 – 1	Acute Tox. 4 (Oral), H302 (ATE=1100 mg/kg bodyweight) Eye Irrit. 2, H319 Carc. 2, H351

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Nitrilotriacetic acid trisodium salt	(CAS-No.) 5064-31-3 (EC-No.) 225-768-6 (EC Index-No.) 607-620-00-6	(5 ≤C < 100) Carc. 2, H351

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects after inhalation : May cause irritation to the respiratory tract.
- Symptoms/effects after skin contact : Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
- Symptoms/effects after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
- Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : Do not use water jet.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon. irritating vapours.

5.3. Advice for firefighters

- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Contain spill, then place in a suitable container. Minimize dust generation. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Avoid generating and breathing dust. Do not swallow. When using do not eat, drink or smoke. Handle and open container with care. Good housekeeping is important to prevent accumulation of dust. The use of compressed air for cleaning clothing, equipment, etc, is not recommended.

Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of reach of children. Store tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Cleaner.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.

Hand protection:

Chemical resistant gloves (according to European standard NF EN 374 or equivalent)

Eye protection:

Safety eyewear complying with an approved standard such as the European Standard EN166 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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Thermal hazard protection:

Use personal protective equipment as required.

Environmental exposure controls:

Avoid release to the environment.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Granules. Powder
Colour	: White
Odour	: None
Odour threshold	: No data available
pH	: No data available
pH solution	: 11.55 (1% Solution) (Acid reserve: 1.38)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: > 100 °C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not flammable
Vapour pressure	: Not applicable
Vapour pressure at 50 °C	: Not applicable
Relative vapour density at 20 °C	: No data available
Relative density	: 0.90 - 1.03
Solubility	: Soluble in water
Partition coefficient n-octanol/water	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
Particle size	: 100 – 850 µm

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Incompatible materials.

10.5. Incompatible materials

Strong oxidizing agents. Strong acids.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. irritating vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified.
 Acute toxicity (dermal) : Not classified.
 Acute toxicity (inhalation) : Not classified.

ATE CLP (oral)	2628.346 mg/kg bodyweight
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Disodium carbonate (497-19-8)	
LD50 oral rat	4090 mg/kg
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: other:
LC50 inhalation rat	2300 mg/m ³ (Exposure time: 2 h)

Sodium percarbonate (15630-89-4)	
LD50 oral rat	1034 mg/kg
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: other:EPA Guideline

Tetrasodium EDTA (64-02-8)	
LD50 oral rat	1658 mg/kg
LD50 oral	1210 mg/kg

Sodium metasilicate (6834-92-0)	
LD50 oral rat	1153 mg/kg
LD50 dermal rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity)
LC50 inhalation rat	> 2.06 mg/l air Animal: rat, Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)

Nitrilotriacetic acid trisodium salt (5064-31-3)	
LD50 oral rat	1100 mg/kg
LC50 inhalation rat	> 5 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.
 Serious eye damage/irritation : Causes serious eye irritation.
 Respiratory or skin sensitisation : Not classified.
 Additional information : Based on available data, the classification criteria are not met.
 Germ cell mutagenicity : Not classified.
 Additional information : Based on available data, the classification criteria are not met.
 Carcinogenicity : Not classified.
 Additional information : Based on available data, the classification criteria are not met.
 Reproductive toxicity : Not classified.
 Additional information : Based on available data, the classification criteria are not met.
 STOT-single exposure : Not classified.
 Additional information : Based on available data, the classification criteria are not met.
 STOT-repeated exposure : Not classified.
 Additional information : Based on available data, the classification criteria are not met.
 Aspiration hazard : Not classified.
 Additional information : Based on available data, the classification criteria are not met.
 Other information : No additional information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Not applicable.
 Hazardous to the aquatic environment, short-term (acute) : Not classified.
 Hazardous to the aquatic environment, long-term (chronic) : Not classified.

Disodium carbonate (497-19-8)	
LC50 - Fish [1]	300 mg/l Test organisms (species): Lepomis macrochirus
LC50 - Fish [2]	310 – 1220 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Crustacea [1]	200 – 227 mg/l Test organisms (species): Ceriodaphnia sp.
EC50 - Crustacea [2]	200 – 227 mg/l Test organisms (species): Ceriodaphnia sp.

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Sodium percarbonate (15630-89-4)	
LC50 - Fish [1]	70.7 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Crustacea [1]	4.9 mg/l Test organisms (species): Daphnia pulex
Tetrasodium EDTA (64-02-8)	
LC50 - Fish [1]	41 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
LC50 - Fish [2]	59.8 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Crustacea [1]	140 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	1.01 mg/l (Species: Desmodesmus subspicatus)
ErC50 algae	1.01 mg/l
LOEC (chronic)	50 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	25 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	≥ 25.7 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) Duration: '35 d'
Sodium metasilicate (6834-92-0)	
LC50 - Fish [1]	210 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])
LC50 - Fish [2]	210 mg/l (Exposure time: 96 h - Species: Brachydanio rerio)
EC50 - Crustacea [1]	1700 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	207 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
Nitriilotriacetic acid trisodium salt (5064-31-3)	
LC50 - Fish [1]	93 – 170 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 - Fish [2]	175 – 225 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 - Crustacea [1]	560 – 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h - Algae [1]	> 91.5 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	> 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
NOEC (chronic)	9.3 mg/l Test organisms (species): other aquatic arthropod: Gammarus pseudolimnaeus Duration: '147 d'
NOEC chronic fish	> 54 mg/l Test organisms (species): Pimephales promelas Duration: '224 d'

12.2. Persistence and degradability

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Persistence and degradability : Not established.

12.3. Bioaccumulative potential

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Bioaccumulative potential : Not established.

Disodium carbonate (497-19-8)

BCF - Fish [1] : (no bioaccumulation)

Sodium percarbonate (15630-89-4)

BCF - Fish [1] : (no bioaccumulation)

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : No other effects known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. Recycle empty containers where allowed.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

ADR	IMDG	IATA
14.1. UN number		
Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name		
Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
14.4. Packing group		
Not regulated	Not regulated	Not regulated
14.5. Environmental hazards		
Not regulated	Not regulated	Not regulated
No supplementary information available.		

14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

- Overland transport

Not regulated

- Transport by sea

Not regulated

- Air transport

Not regulated

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant EU provisions transposed through retained EU law

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no REACH candidate substance.

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no REACH Annex XIV substances

15.1.2. National regulations

Not determined

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

None.

Abbreviations and acronyms:

°C – Degrees Celsius
°F – Degrees Fahrenheit
ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road.
ACGIH – American Conference of Governmental Industrial Hygienists
ATE – Acute Toxicity Estimate
BCF – Bioconcentration Factor
BEI – Biological Exposure Index
CAS – Chemical Abstracts Service
CLP – Regulation (EC) No 1272/2008 on the Classification, Labeling and Packaging of substances and mixtures.

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CMR – Carcinogen, Mutagen, Reproductive toxin
cP – centipoise (unit of dynamic viscosity)
cSt – centistokes (unit of kinematic viscosity)
DNEL – Derived No-effect Level
DMEL – Derived Minimal Effect Level
EC50 – Half maximal effective concentration
ECHA – European Chemicals Agency
EC-No. – European Community number
EU – European Union
GHS – Globally Harmonized System of Classification and Labelling of Chemicals
h – Hours
IATA – International Air Transport Association
IC50 – Inhibition concentration
IDLH – Immediately Dangerous to Life or Health
IMDG – International Maritime Dangerous Goods
IOELV – Indicative Occupational Exposure Limit Value
KIFS – Swedish Chemicals Agency's (Kemli's) Code of Statutes
kPa – kilopascal
Koc – Adsorption Coefficient
Kow – Octanol-Water Partition Coefficient
LC50 – Median Lethal Concentration
LD50 – Median Lethal Dose
LOAEL – Lowest Observed Adverse Effect level
mg/l – Milligram per liter
mg/kg – Milligram per kilogram
mg/m³ – Milligram per cubic meter
Min – Minutes
NIOSH – National Institute for Occupational Safety and Health
NOEC – No Observed Effect Concentration
NO(A)EL – No Observed (Adverse) Effect Level
N.O.S. – Not Otherwise Specified
OEL – Occupational Exposure Limit
PBT - Persistent, Bioaccumulative and Toxic
PCN – Poison Centre Notification
PNEC – Predicted No Effect Concentration
ppm – Parts per million
PVC – Polyvinyl chloride
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID – European Agreement concerning the International Carriage of Dangerous Goods by Rail
SDS – Safety Data Sheet
STEL – Short Term Exposure Limit
STOT – Specific Target Organ Toxicity
SVHC – Substance of Very High Concern (CMR, vPvB, PBT)
TDI – Tolerable Daily Intake
TLV – Threshold Limit Value
TWA – Time Weighted Average
UFI – Unique Formulation Identifier
UN – United Nations
vPvB - Very Persistent and Very Bioaccumulative
WEL – Workplace Exposure Limit
WGK – Wassergefährdungsklasse – German water quality classification

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.

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Met. Corr. 1	Corrosive to metals, Category 1
Ox. Sol. 2	Oxidising Solids, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.