

Safety Data Sheet

Crystal Clean

Component	Concentration
Water (CAS no.: 7732-18-5; EC no.: 231-791-2)	94 - 99 % (weight)
Proprietary ingredients	3 - 8 % (weight)
Titanium(IV) oxide (CAS no.: 13463-67-7; EC no.: 236-675-5)	1 - 5 % (weight)
Diethylamine Phosphate (CAS no.: 60159-97-9)	0.2 - 1 % (weight)
Diethyl ammonium acetate (CAS no.: 20726-63-0)	≤ 0.5 % (weight)
Sodium chlorite (CAS no.: 7758-19-2)	0.04 - 0.05 % (weight)

Trade secret statement (OSHA 1910.1200(i))

*The specific chemical identities and/or actual concentrations or actual concentration ranges for one or more listed components are being withheld as trade secrets under the US regulation 29 CFR 1910.1200(i).

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled	Remove to fresh air and promote deep breathing. Get medical attention if effects persist.
In case of skin contact	Wash with plenty of soap and water. Get medical attention if irritation develops or persists.
In case of eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, get medical attention
If swallowed	Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

If inhaled	Overexposure may cause respiratory irritation.
In case of skin contact	Overexposure may cause skin irritation. Signs/symptoms may include localized redness, swelling, and itching.
In case of eye contact	May cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.
If swallowed	May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

No data available.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use extinguishing media appropriate for surrounding fire.

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5.2 Specific hazards arising from the chemical

Hazardous combustion products may include carbon oxides and other toxic fumes and gases.

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protection recommended in Section 8. Avoid breathing vapours, mist or gas. Avoid contact with eyes and skin.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material. Pick up and keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practices. Avoid contact with skin and eyes. Do not eat, drink or smoke while handling. Wash hands with soap and water after handling. Take off all contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place between 45 and 95 degrees Fahrenheit. Keep out of direct sunlight. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Titanium dioxide (CAS 13463-67-7):

OSHA PEL 8-hour TWA (ST) STEL (C) Ceiling Peak		NIOSH REL Up to 10-hour TWA (ST) STEL (C) Ceiling		ACGIH® TLV® 8-hour TWA (ST) STEL (C) Ceiling		Cal/OSHA PEL 8-hour TWA (ST) STEL (C) Ceiling Peak	
PEL-TWA	15 mg/m ³ (total dust)	REL-TWA	Not available	TLV-TWA	10 mg/m ³	PEL-TWA	10 mg/m ³ (total dust), 5 mg/m ³ (respirable fraction)
PEL-STEL	Not available	REL-STEL	Not available	TLV-STEL	Not available	PEL-STEL	Not available
PEL-C	Not available	REL-C	Not available	TLV-C	Not available	PEL-C	Not available

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8.2 Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Pictograms



Eye/face protection

Safety glasses/goggles are recommended.

Skin protection

Wear protective gloves, such as nitrile gloves.

Body protection

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Provide good ventilation. Respiratory protection is not required under normal use conditions. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Thermal hazards

No data available.

Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Off-white liquid
Odor	Pleasant odor
Odor threshold	No data available.
pH	7 to 9
Melting point/freezing point	No data available.
Initial boiling point and boiling range	213°F (100°C)
Flash point	No data available.
Evaporation rate	No data available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability limits	No data available.
Upper/lower explosive limits	No data available.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	No data available.
Solubility(ies)	Soluble in water.
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	No data available.

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Explosive properties
Oxidizing properties

Not explosive.
No data available.

Other safety information
No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Non-reactive under normal use conditions.

10.2 Chemical stability

Stable under normal storage conditions.

10.3 Possibility of hazardous reactions

Diethylamine may be formed at high pH.

10.4 Conditions to avoid

Keep away from incompatible materials. Avoid increasing pH.

10.5 Incompatible materials

Strong oxidizers, acids, bases, reactive metals.

10.6 Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Based on available data, classification data are not met

Likely Routes of Exposure: Eye contact. Skin contact. Inhalation.

Acute and delayed symptoms and effects from inhalation, skin and eye contact and ingestion are listed in Section 4.

Components:

Titanium(IV) oxide (CAS no.: 13463-67-7)
LD50 (oral) – rat - >5000 mg/kg

Sodium chlorite (CAS no.: 7758-19-2)
LD50 (oral) – rat – 165 mg/kg
LC50 (inhalation) – rat – 230mg/m³/4H

Skin corrosion/irritation

Overexposure may cause skin irritation. Signs/symptoms may include localized redness, dryness, swelling, and itching.

Serious eye damage/irritation

May cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Respiratory or skin sensitization

Based on available data, classification data are not met

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Germ cell mutagenicity

Based on available data, classification data are not met

Carcinogenicity

Product contains titanium dioxide, which is classified as possibly carcinogenic to humans by IARC (Group 2B). Carcinogenic effect (lung tumors) was observed in long-term studies in rats in which the substance was given by inhalation. However, similar pathological changes were not observed in other common laboratory rodents. Epidemiological investigations showed no link between titanium dioxide exposure and cancer risk in humans. Titanium dioxide used in this product is in a non-respirable form under normal conditions of use. Therefore, the carcinogenic effects of titanium dioxide are not applicable for this product.

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

Based on available data, classification data are not met

STOT-single exposure

Based on available data, classification data are not met

STOT-repeated exposure

Based on available data, classification data are not met

Aspiration hazard

Based on available data, classification data are not met

SECTION 12: Ecological information

Toxicity

No data available on product

Persistence and degradability

No data available on product

Bioaccumulative potential

No data available on product

Mobility in soil

No data available on product.

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

No ecological problems are to be expected when the product is handled and used with due care and attention.

SECTION 13: Disposal considerations

Disposal of the product

Disposal should be in accordance with applicable Federal, State and local laws and regulations. Local regulations may be more stringent than State or Federal requirements.

Disposal of contaminated packaging

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Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 311/312 Hazards

No SARA hazards.

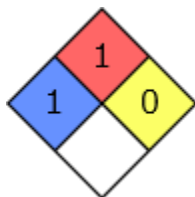
SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

HMIS Rating

PREVNT	
HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	

NFPA Rating



SECTION 16: Other information

16.1 Further information/disclaimer

Date of issue: May 27, 2020.

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. All materials may present

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unknown hazards and should be used with caution. In no event shall we be held liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if we have been advised of the possibility of such damages.