TED PELLA, INC.
Microscopy Products for Science and Industry

SAFETY DATA SHEET

Product No. 46-2 Sodium Chloride Single Crystal Substrate
Issue Date (06/01/1989)
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Section 1: Product and Company Identification

Product Name: Sodium Chloride Single Crystal Substrate

Company Name
Ted Pella, Inc., P.O. Box 492477, Redding, CA 96049-2477
Inside USA and Canada 1-800-237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 66:00AM to 4:00PM PST)
Outside USA and Canada 1-530-243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)
CHEMTREC USA and Canada Emergency Contact Number 1-800-424-9300 24 hours a day
CHEMTREC Outside USA and Canada Emergency Contact Number +1-703-741-5970 24 hours a day

Section 2: Hazard Identification

- Classification of the substance or mixture Not a hazardous substance or mixture
- GHS Label elements, including precautionary statements Not a hazardous substance or mixture
- Hazards not otherwise classified (HNOC) or not covered by GHS None

HMIS Rating Health
hazard: 1
Chronic health hazard:
Flammability: 0
Physical hazard: 0

NFPA Rating Health
hazard: 1
Fire hazard: 0
Reactivity hazard: 0

Section 3: Composition / Information on Ingredients

Formula: NaCl Molecular
Weight: 58.44 g/mol

Component
CAS-No: 07647-14-5
EC-No: 231-598-3

No ingredients are hazardous according to OSHA criteria.
No components need to be disclosed according to the applicable regulations.

Section 4: First Aid Measures

Description of first aid measures:

If inhaled:	If breathed in, move person into fresh air. If not breathing, give artificial respiration.
In case of skin contact:	Wash off with soap and plenty of water.
In case of eye contact:	Flush eyes with water as a precaution.
If swallowed:	Never give anything by mouth to an unconscious person. Rinse mouth with water.

Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in the labelling Section 2 and/or in Section 11. Indication of any immediate medical attention and special treatment needed.

Section 5: Fire Fighting Measures

Suitable extinguishing media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards arising from the substance or mixture:	Hydrogen chloride gas, Sodium oxides.
Advice for firefighters:	Wear self-contained breathing apparatus for firefighting if necessary.
Further information:	No data available

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Avoid dust formation.
Avoid breathing vapors, mist or gas.
For personal protection, see Section 8.

Environmental precautions:

Do not let product enter drains.

Methods and materials for containment and cleaning up:

Sweep up and shovel.
Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

Section 7: Handling and Storage

Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed.
For precautions, see Section 2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Specific end use(s)

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

Section 8: Exposure Controls / Personal Protection

Contains no substances with occupational exposure limit values

Control parameters:	Components with workplace control parameters
Exposure controls:	Appropriate engineering controls. General industrial hygiene practice.

Personal protective equipment

Eye/face protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).
Skin protection	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Body protection	Choose body protection in relation to its type, to the concentration and amount of dangerous substances and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection	Respiratory protection is not required. Where protection from nuisance levels of dust are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

Section 9 Physical and Chemical Properties

APPEARANCE	
Form:	Powder
Color:	Colorless
Odor:	No data available
Odor threshold:	No data available
pH:	7
Melting point/freezing point:	801°C (1474° F)
Initial boiling point and boiling range:	1413°C (2575°F)
Flash point:	No data available
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper flammability or explosive limits:	No data available
Lower flammability or explosive limits:	No data available
Vapor pressure:	1.33 hPa (1.00 mmHg) at 865°C (1589°F)

Vapor density:	No data available
Relative density:	2.1650 g/cm^3
Water solubility:	Soluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available

Section 10: Stability and Reactivity

Reactivity:	No data available
Chemical stability:	Stable under recommended storage conditions
Possibility of hazardous reactions:	No data available
Conditions to avoid:	No data available
Incompatible materials:	Strong oxidizing agents
Hazardous decomposition products:	No data available
Other decomposition products:	No data available

Section 11: Toxicological Information

Acute toxicity LD50 Oral – rat – 3550 mg/kg

LC50 Inhalation – rat – 1 h > 42000 mg/m^3

LD50 Dermal – rabbit – 10,000 mg/kg

Skin corrosion/irritation:	No data available
Serious eye damage/eye irritation:	No data available
Respiratory or skin sensitization	No data available
Germ cell mutagenicity:	No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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

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 NTP.

OSHA: 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:	No data available
Specific target organ toxicity, single exposure:	No data available
Specific target organ toxicity, repeated exposure:	No data available
Aspiration hazard:	No data available
Additional information:	RTECS: VZ4725000

Vomiting, diarrhea, dehydration and congestion may occur in internal organs.
Hypertonic salt solutions can produce inflammatory reactions in the gastrointestinal tract.

Section 12: Ecological Information

Toxicity

Toxicity to fish: LC50 – Lepomis macrochirus (Bluegill) – 5840mg/l – 96 h

Toxicity to daphnia and other aquatic invertebrates:

NOEC – Daphnia – 1500mg/l – 7 d

LC50 – Daphnia magna (Water flea) – 1661 mg/l – 48 h

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Results of PBT and vPvB assessment:

Not required/Not conducted

Other adverse effects: No data available

Section 13 Disposal Considerations

Product: Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated Packaging: Dispose of as unused product.

Section 14: Transportation Information

DOT (US): Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

Section 15: Regulatory Information

REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

SARA 311/312 HAZARDS: No SARA hazards

MASSACHUSETTS RIGHT TO KNOW COMPONENTS: No components listed

PENNSYLVANIA RIGHT TO KNOW COMPONENTS:

Sodium Chloride CAS-No. 07647-14-5

NEW JERSEY RIGHT TO KNOW COMPONENTS:

Sodium Chloride CAS-No. 07647-14-5

CALIFORNIA PROP. 65 COMPONENTS: This product does not contain any chemicals known to the state of California to cause cancer, birth defects or any other reproductive harm.

Section 16: Other Information

This Safety Data Sheet (SDS) is intended to comply with the OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Full text of other abbreviations

ACGIH:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI:	ACGIH - Biological Exposure Indices (BEI)
NIOSH REL:	USA. NIOSH Recommended Exposure Limits
OSHA Z-1:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA Z-2:	USA. Occupational Exposure Limits (OSHA) - Table Z-2
US WEEL:	USA. Workplace Environmental Exposure Levels (WEEL)
ACGIH / TWA:	8-hour, time-weighted average
ACGIH / STEL:	Short-term exposure limit
NIOSH REL/TWA:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL/ST:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday OSHA Z-1 / TWA: 8-hour time weighted average
OSHA Z-2/TWA:	8-hour time weighted average
OSHA Z-2/CEIL:	Acceptable ceiling concentration
OSHA Z-2/Peak:	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift
US WEEL/TWA:	8-hr TWA

AICS - Australian Inventory of Chemical Substances;
AIIC - Australian Inventory of Industrial Chemicals;
ASTM - American Society for the Testing of Materials;
bw - Body weight;
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act;
CMR - Carcinogen, Mutagen or Reproductive Toxicant;
DIN - Standard of the German Institute for Standardization;
DOT - Department of Transportation;
DSL - Domestic Substances List (Canada);
ECx - Concentration associated with x% response;
EHS - Extremely Hazardous Substance;
ELx - Loading rate associated with x% response;
EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan);
ErCx - Concentration associated with x% growth rate response;
ERG - Emergency Response Guide;
GHS - Globally Harmonized System;
GLP - Good Laboratory Practice;
HMIS - Hazardous Materials Identification System;
IARC - International Agency for Research on Cancer;
IATA - International Air Transport Association;
IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk;
IC50 - Half maximal inhibitory concentration;
ICAO - International Civil Aviation Organization;
IECSC - Inventory of Existing Chemical Substances in China;
IMDG - International Maritime Dangerous Goods;
IMO - International Maritime Organization;
ISHL - Industrial Safety and Health Law (Japan);
ISO - International Organization for Standardization;
KECI - Korea Existing Chemicals Inventory;

LC50 - Lethal Concentration to 50 % of a test population;
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose);
MARPOL - International Convention for the Prevention of Pollution from Ships;
MSHA - Mine Safety and Health Administration;
n.o.s. - Not Otherwise Specified;
NFPA - National Fire Protection Association;
NO(A)EC - No Observed (Adverse) Effect Concentration;
NO(A)EL - No Observed (Adverse) Effect Level;
NOELR - No Observable Effect Loading Rate;
NTP - National Toxicology Program;
NZIoC - New Zealand Inventory of Chemicals;
OECD - Organization for Economic Co-operation and Development;
OPPTS - Office of Chemical Safety and Pollution Prevention;
PBT - Persistent, Bioaccumulative and Toxic substance;
PICCS - Philippines Inventory of Chemicals and Chemical Substances;
(Q)SAR - (Quantitative) Structure Activity Relationship;
RCRA - Resource Conservation and Recovery Act;
REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals;
RQ - Reportable Quantity;
SADT - Self-Accelerating Decomposition Temperature;
SARA - Superfund Amendments and Reauthorization Act;
SDS -Safety Data Sheet;
TCSI - Taiwan Chemical Substance Inventory;
TSCA - Toxic Substances Control Act (United States);
UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods;
vPvB - Very Persistent and Very Bioaccumulative
