



Safety Data Sheet

Material Name: Aluminum Paste

SDS ID: TA-001

Section 1 - IDENTIFICATION

PRODUCT IDENTIFICATION

Material Name: Aluminum Paste

Grade Names: TCR 2040A; TCR 2050A; TCR 3010; TCR 3015A; TCR 3028A; TCR 3040; TCR 3041; TCR 3070A; TCR 3080; TCR 3130; TCR 3140; TCR 4010B; TCR 4040B; TCR 6020A; TCR 6060A; TSB 2044A; TSB 2145A; TSB 2180A; TSB 3150A

Product Use

Pigments and coatings manufacturing

Restrictions on Use

None known.

Manufacturer Information

Toyal America, Inc.
17401 South Broadway
Lockport, IL 60441 USA
Facility Phone: 815-740-3000

24 Hour Emergency Telephone:

1-800-424-9300 Chemtrec (USA & Canada)
+1-703-527-3887 Chemtrec (International Call Collect)

General Comments

None

Section 2 - HAZARDS IDENTIFICATION

Hazard Classification

Skin corrosion/irritation, Category 2
Eye Damage / Irritation, Category 2B
Carcinogenicity, Category 2
Specific Target Organ Toxicity - Single Exposure, Category 3 (respiratory tract irritation; narcotic effects)
Specific Target Organ Toxicity - Repeated Exposure, Category 2 (nervous system)

(Note: Product contains a Category 2 carcinogen at concentrations between 0.1 and 1.0 wt% and is assigned a hazard classification on that basis. The associated label elements and product label information are optional and not included).

LABEL ELEMENTS

Symbol(s)



Signal Word

WARNING

Hazard Statement(s)

Causes skin irritation
Causes eye irritation
May cause respiratory irritation



Safety Data Sheet

Material Name: Aluminum Paste

SDS ID: TA-001

May cause dizziness or drowsiness

May cause damage to central nervous system through prolonged or repeated exposure.

Precautionary Statement(s)

Prevention

Keep away from heat/sparks/flames/hot surfaces-No smoking. Ground/bond container and receiving container. Do not breathe dust/mist/vapors. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Wear protective gloves/clothing and eye/face protection. Do not eat, drink, or smoke when using this product. Use personal protective equipment as required. Avoid release to the environment.

Response

IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician, get medical advice/attention. Specific treatment may be needed, see first aid section of Safety Data Sheet.

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

IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention. Take off contaminated clothing and wash before re-use.

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.

IN case of fire, use appropriate extinguisher to extinguish.

Collect spillage.

Storage

Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal

Dispose of material in accordance with all local, regional, national and international regulations.

Other Hazards which do not Result in Classification

None known.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component	Percent
7429-90-5	Aluminum	70-85
8052-41-3	Stoddard solvent (a complex UVCB petroleum distillate mixture consisting of 30-60% C9-C15 Cycloalkanes, 10-30% C9-C15 Alkanes, and 10-30% C9-C15 Aromatics)	5-12
64742-95-6	Petroleum naphtha, light aromatic	7-16
112-80-1	Oleic acid	1-3

The two solvent ingredients listed above, Stoddard Solvent (8052-41-3) and Petroleum Naphtha, Light Aromatic (64742-95-6), are complex mixtures (UVCB) with their own CAS numbers and registrations. The compounds listed below are identified by the manufacturers as constituents of these materials.

CAS	Constituents Contained in Stoddard Solvent (8052-41-3) and/or Petroleum naphtha, light aromatic (64742-95-6)	Percent in Final Product
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Safety Data Sheet

Material Name: Aluminum Paste

SDS ID: TA-001

95-63-6	Benzene, 1,2,4-trimethyl-	<6.1
25551-13-7	Trimethylbenzene, all isomers	<7
1330-20-7	Xylenes (o-, m-, p- isomers)	<1.0
98-82-8	Cumene (Carcinogenicity, Category 2)	<0.3

Section 4 - FIRST AID MEASURES

Description of Necessary Measures

Inhalation

If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

Skin

Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

Eyes

Flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Then get immediate medical attention.

Ingestion

If swallowed, get medical attention..

Symptoms: Immediate

Skin irritation, eye irritation, respiratory tract irritation, central nervous system effects

Symptoms: Delayed

Nervous system damage

Section 5 - FIRE FIGHTING MEASURES

Flammability Properties

If the solvent or additive has been removed, either by evaporation or burning, dry aluminum flake will remain. The aluminum particles will burn at a very high temperature as a mass of material or be potentially explosive if loosened and dispersed in air. Follow the listed fire fighting procedures carefully.

Suitable Extinguishing Media

Dry chemical or carbon dioxide in beginning stages. If solvent component has burned off, use Class D extinguishing agent or dry sand.

Unsuitable Extinguishing Media

Do not use halogenated extinguishing agents. Do not use water.

Special Hazards Arising from the Substance or Mixture

Hazardous Combustion Products

Combustion: oxides of aluminum, oxides of carbon



Safety Data Sheet

Material Name: Aluminum Paste

SDS ID: TA-001

Special Fire Fighting Measures

An aluminum paste fire usually begins as a solvent fire. The solvent fire can be fought with Class "B" extinguishing agents. ***Halogenated or vaporizing liquids must never be used.*** If during the application of the Class "B" agent it becomes evident the fire has spread to become a powder fire, discontinue the use of the Class "B" and use either a Class "D" extinguisher or dry sand. If the aluminum metal has ignited, it should be gently covered with the sand or Class "D" agent and allowed to burn itself out under the crust. Once covered do not disturb until totally cooled. Suitable, commonly used Class "B" agents are dry chemical and carbon dioxide. Carbon dioxide may be used to extinguish fires involving solvent-wetted aluminum. However, re-ignition is possible due to high localized heat or spontaneous heating. To avoid re-ignition, the residual material must be immediately, gently smothered with a Class "D" extinguishing agent or dry sand without causing the material to become airborne. Refer to the Aluminum Association TR-2 Bulletin or NFPA 484 for further information.

Special Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Environmental Precautions

Avoid release to the environment. Collect spillage.

Methods for Containment and Cleaning up

Avoid heat, flames, sparks and other sources of ignition. Remove sources of ignition. Do not touch or walk through spilled material. Stop leak if possible without personal risk. Do not get water directly on material. Eliminate the generation of static electricity. Collect material into suitable container for disposal. Move containers away from spill to a safe area. **Do not form dust cloud.** Aluminum dust can be potentially explosive when dispersed in air in sufficient concentrations.

Precautionary Measures to Prevent Secondary Hazards

No additional information is available.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Do not breathe dust. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Wear protective gloves/clothing and eye/face protection. Do not eat, drink, or smoke when using this product. Use only with adequate ventilation. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

Conditions for Safe Storage, Including Any Incompatibilities

Store and handle in accordance with all current regulations and standards. Store in a well-ventilated place. Store in a cool, dry place. Store in a tightly closed container. Store locked up. Keep separated from incompatible substances.



Safety Data Sheet

Material Name: Aluminum Paste

SDS ID: TA-001

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Aluminum (7429-90-5)

ACGIH: 1 mg/m³ TWA (respirable fraction)

OSHA: 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)

NIOSH: 10 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable dust)

Stoddard solvent (8052-41-3)

ACGIH: 100 ppm TWA

OSHA: 500 ppm TWA; 2900 mg/m³ TWA

NIOSH: 350 mg/m³ TWA

1800 mg/m³ Ceiling (15 min)

C9-C15 Cycloalkanes

ACGIH: 400 ppm TWA 8 hr (as methylcyclohexane)

C9-C15 aromatics

ACGIH: 400 ppm TWA 8 hr (as methylcyclohexane)

Light aromatic petroleum naphtha (64742-95-6)

ExxonMobil: 19 ppm RCP-TWA

100 mg/m³ RCP-TWA

Benzene, 1,2,4-trimethyl- (95-63-6)

ACGIH: 25 ppm TWA

NIOSH: 25 ppm TWA; 125 mg/m³ TWA

Trimethylbenzene isomers

ACGIH: 25 ppm TWA

NIOSH: 25 ppm TWA; 125 mg/m³ TWA

Xylenes (o-, m-, p- isomers)(1330-20-7)

ACGIH: 100 ppm TWA

150 ppm STEL

OSHA: 100 ppm TWA; 435 mg/m³ TWA

Cumene (98-82-8)

ACGIH: 50 ppm TWA

OSHA: 50 ppm TWA; 245 mg/m³ TWA- Skin notation

NIOSH: 50 ppm TWA; 245 mg/m³ TWA- Potential for skin absorption

900 ppm IDLH



Safety Data Sheet

Material Name: Aluminum Paste

SDS ID: TA-001

Biological Limit Values

Xylenes (o-, m-, p- isomers) (1330-20-7)

ACGIH: 1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids

Appropriate Engineering Controls

Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eyes/Face Protection

The appropriate eye/face protection must be determined by the user of the material, based upon the conditions of use. Safety glasses with side shields should be worn at a minimum. Chemical safety goggles provide a greater level of protection, and should be considered based upon the material's anticipated exposure levels. A face shield (in addition to safety goggles) should be considered when significant exposures are expected.

Skin Protection

Wear appropriate chemical resistant clothing.

Glove Recommendations

Wear appropriate chemical resistant gloves.

Respiratory Protection

Use a full facepiece respirator for concentrations exceeding the occupational limits.

Protection provided by air-purifying respirators is limited.

Use a positive-pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known, or any other circumstance where air-purifying respirators may not provide adequate protection.

* * *Section 9 - PHYSICAL AND CHEMICAL PROPERTIES* * *

Appearance:	Silver paste
Physical State:	Paste
Color:	Silver
Odor:	Organic solvent odor
Odor Threshold:	Not available
pH:	Not available
Melting Point:	Not available
Boiling Point:	266-398F (solvent)
Flash Point:	105F (solvent)
Evaporation Rate:	<1.0 (butyl acetate = 1)
Flammability (solid, gas):	Not available
Upper/lower explosive limits:	LEL: 0.6% (solvent); UEL: 8.0% (solvent)
Vapor Pressure:	<2.1 mm Hg @ 20C (solvent)
Vapor Density:	4.2-5 (air =1) (solvent)
Relative Density:	1.2-2 (water =1)
Solubility:	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available



Safety Data Sheet

Material Name: Aluminum Paste

SDS ID: TA-001

Viscosity: Not available

Other Property Information

*The product is considered a solid per ASTM D4359-84 for transportation purposes, therefore flashpoint is not applicable to the product itself for transport classification. The flashpoint of the solvent component of this product is 105°F.

Section 10 - STABILITY AND REACTIVITY

Reactivity

See sub-sections below.

Chemical Stability

Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions

Reacts violently with halogenated hydrocarbons and oxidizers to produce heat. Reacts with water and slowly generates heat and hydrogen gas. Aluminum reacts with acids or alkalis to form flammable hydrogen gas. Will not polymerize.

Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat. Take precautionary measures against static discharge.

Incompatible Materials

Water, acids, bases, combustible materials, oxidizing materials

Hazardous Decomposition

Combustion: oxides of aluminum, oxides of carbon

Section 11 - TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Eye Contact: Causes serious eye irritation. Symptoms may include pain or irritation, watering, and/or redness.

Inhalation: Can cause central nervous system depression. May cause dizziness or drowsiness. Symptoms may include nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness.

Skin Contact: Causes skin irritation. Adverse symptoms may include irritation, redness, and drying of the skin.

Ingestion: Can cause central nervous system depression. Irritating to mouth, throat, and stomach. Adverse symptoms may include nausea or vomiting.

There is no toxicological data on the mixture itself. The toxicological data is presented for the substances in the mixture.

Acute Toxicity

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Aluminum – CAS: 7429-90-5

No data

Stoddard solvent CAS: 8052-41-3 (C9-C15 alkanes)

In animal studies utilizing mineral spirits containing up to 22% aromatics indicated that acute central nervous system effects are reversible. Based on existing animal studies, the potential for persistent effects is not clear.

Petroleum naphtha, light aromatic CAS: 64742-95-6

Test: LD50 - Route: Oral - Species: Rat 3492 mg/kg - Notes: OECD 401

Test: LD50 - Route: Skin - Species: Rabbit > 3160 mg/kg - Duration: 24H - Notes: OECD 402



Safety Data Sheet

Material Name: Aluminum Paste

SDS ID: TA-001

Test: LC50 - Route: Inhalation - Species: Rat > 6193 mg/m³ - Notes: OECD 403

Trimethylbenzene isomers CAS: 25551-13-7

Oral LD50 Rat 8970 mg/kg

Oleic acid (112-80-1)

Oral LD50 Rat 25 g/kg

Benzene, 1,2,4-trimethyl- (95-63-6)

Inhalation LC50 Rat 18 g/m³ 4 h; Oral LD50 Rat 3400 mg/kg; Dermal LD50 Rabbit >3160 mg/kg

Xylenes (o-, m-, p- isomers) (1330-20-7)

Inhalation LC50 Rat 5000 ppm 4 h; Inhalation LC50 Rat 47635 mg/L 4 h; Oral LD50 Rat 4300 mg/kg; Dermal LD50 Rabbit >1700 mg/kg

Cumene (98-82-8)

Oral LD50 Rat 1400 mg/kg; Inhalation LC50 Rat 39000 mg/m³ 4 h; Dermal LD50 Rabbit >3160 mg/kg

Irritation/Corrosivity Data

Aluminum CAS: 7429-90-5

No data

Stoddard solvent CAS: 8052-41-3 (C9-C15 alkanes)

Skin: Primary dermal irritation studies (four hour exposure) in rabbits utilizing mineral spirits containing less than 2% aromatics resulted in slight to moderate skin irritation. In humans, mineral spirits have produced slight to moderate skin irritation particularly with evaporation from the skin is prevented

Eyes: No additional information

Respiratory: Animal studies have demonstrated that mineral spirits produced mild respiratory tract irritation at elevated concentrations. Also, sensory respiratory tract irritation was evident by reduced breathing rates in test animals in certain studies.

Stoddard solvent CAS: 8052-41-3 (C9-C15 aromatics)

Skin: mild irritant-rabbit 500 microliters 24 hours

Trimethyl benzene isomers CAS: 25551-13-7

Skin: Moderate irritant-rabbit 500 mg 24 hours

Eyes: Mild irritant-rabbit 500 mg 24 hours

Xylenes CAS: 1330-20-7

Skin: Mild irritant-rat 60 microliters 8 hours; Moderate irritant-rabbit 500 mg 24 hours

Cumene CAS: 98-82-8

Skin: Mild irritant-rabbit 10 mg 24 hours

Eyes: Mild irritant-rabbit 86 mg

Petroleum naphtha, light aromatic CAS: 64742-95-6

Skin: Mildly irritating to skin with prolonged exposure. Based on tests equivalent or similar to OECD Guideline 404

Eyes: May cause mild, short-lasting discomfort to eyes. Based on tests equivalent or similar to OECD Guideline 405

Respiratory: May be irritating to the respiratory tract

Respiratory/Dermal Sensitization

Aluminum CAS: 7429-90-5

No data

Stoddard solvent CAS: 8052-41-3 (C9-C15 alkanes)

Skin: In animal studies utilizing mineral spirits containing up to 18% aromatics, skin sensitization is not evident

Respiratory: No additional information

Petroleum naphtha, light aromatic CAS: 64742-95-6

Skin: Not expected to be a skin sensitizer. Based on tests equivalent or similar to OECD Guideline 406



Safety Data Sheet

Material Name: Aluminum Paste

SDS ID: TA-001

Respiratory: Not expected to be a respiratory sensitizer

Germ Cell Mutagenicity

Aluminum CAS: 7429-90-5

No data

Stoddard solvent CAS: 8052-41-3 (C9-C15 alkanes)

In vivo and in vitro studies on mineral spirits containing up to 22% aromatics indicate that these products are not genotoxic.

Petroleum naphtha, light aromatic CAS: 64742-95-6

Not expected to be a germ cell mutagen. Based on tests equivalent or similar to OECD Guideline 471, 475, 476, 479

Carcinogenicity

Product (aluminum paste)

Classified as Carcinogenicity Category 2 based on the presence of IARC 2B substances (cumene). This is present in the product at concentrations greater than 0.1% but less than 1.0%.

Components

Aluminum (7429-90-5)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

Stoddard solvent CAS: 8052-41-3 (C9-C15 alkanes)

The National Toxicology Program (NTP) conducted two-year carcinogenicity studies in rats and mice with Stoddard Solvent IIC (less than 2% aromatics). The studies indicated that there was some evidence of carcinogenic activity in male rats (adrenal medulla neoplasms and renal tubule adenoma) but no evidence of carcinogenic activity in female rats. Further, there was equivocal evidence of carcinogenic activity in female mice (hepatocellular adenoma) but no evidence of carcinogenic activity in male mice. A low carcinogenic potential is suggested by a lack of genotoxic potential identified in in vivo and in vitro genetic toxicity tests (with and without metabolic activation).

Xylene (1330-20-7)

IARC 3 Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable))

Cumene (98-82-8)

IARC 2B Monograph 101 [2012] (Group 2B (possibly carcinogenic to humans)); NTP- Reasonably anticipated to be a human carcinogen

Reproductive Toxicity

Aluminum CAS: 7429-90-5

No data

Stoddard solvent CAS: 8052-41-3 (C9-C15 alkanes)

There were no treatment-related effects on pregnancy rate, mortality or gross post mortem observations in animal studies utilizing mineral spirits containing less than 2% aromatics.

Petroleum naphtha, light aromatic CAS: 64742-95-6

Not expected to be a reproductive toxicant. Based on tests equivalent or similar to OECD Guideline 414, 416

Specific Target Organ Toxicity - Single Exposure

Aluminum CAS: 7429-90-5

No data

Stoddard solvent CAS: 8052-41-3 (C9-C15 alkanes, C9-C15 cycloalkanes, C9-C15 aromatics)

Category 3- narcotic effects (may cause dizziness or drowsiness)

Petroleum naphtha, light aromatic CAS: 64742-95-6

Category 3. Narcotic effects (may cause dizziness or drowsiness); May be irritating to the respiratory tract

Trimethyl benzene isomers (25551-13-7)

Category 3- Narcotic effects (may cause dizziness or drowsiness); May be irritating to the respiratory tract

1,2,4-Trimethyl benzene (95-63-6)



Safety Data Sheet

Material Name: Aluminum Paste

SDS ID: TA-001

Category 3- May be irritating to the respiratory tract

Cumene (98-82-8)

Category 3- May be irritating to the respiratory tract

Specific Target Organ Toxicity - Repeated Exposure

Aluminum CAS: 7429-90-5

No data

Petroleum naphtha, light aromatic CAS: 64742-95-6

Not expected to cause organ damage from prolonged or repeated exposure. Based on test data for structurally similar materials. Tests equivalent or similar to OECD Guideline 408, 452

Trimethyl benzene isomers (25551-13-7)

Category 2-central nervous system effects

Aspiration Hazard

Product is not expected to be an aspiration hazard.

Potential Acute Health Effects

Aluminum CAS: 7429-90-5

No data

Stoddard solvent CAS: 8052-41-3

Eye contact: May cause eye irritation. Adverse symptoms may include pain or irritation, watering, redness.

Inhalation: Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. Adverse symptoms may include nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness.

Skin contact: Causes skin irritation. Adverse symptoms may include irritation, redness.

Ingestion: Irritating to mouth, throat and stomach if ingested. Adverse symptoms may include nausea or vomiting.

Petroleum naphtha, light aromatic CAS: 64742-95-6

Vapor/aerosol concentrations above recommended exposure levels are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects including death.

Prolonged and/or repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis.



Safety Data Sheet

Material Name: Aluminum Paste

SDS ID: TA-001

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects.

Component Analysis - Aquatic Toxicity

Petroleum naphtha, light aromatic (64742-95-6)

Fish: 96 Hr LC50 Oncorhynchus mykiss: 9.22 mg/L

Invertebrate: 48 Hr EC50 Daphnia magna: 6.14 mg/L

Oleic acid (112-80-1)

Fish: 96 Hr LC50 Pimephales promelas: 205 mg/L [static]

Benzene, 1,2,4-trimethyl- (95-63-6)

Fish: 96 Hr LC50 Pimephales promelas: 7.19-8.28 mg/L [flow-through]

Invertebrate: 48 Hr EC50 Daphnia magna: 6.14 mg/L

Xylenes (o-, m-, p- isomers) (1330-20-7)

Fish: 96 Hr LC50 Pimephales promelas: 13.4 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 2.661-4.093 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 13.5-17.3 mg/L; 96 Hr LC50 Lepomis macrochirus: 13.1-16.5 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 19 mg/L; 96 Hr LC50 Lepomis macrochirus: 7.711-9.591 mg/L [static]; 96 Hr LC50 Pimephales promelas: 23.53-29.97 mg/L [static]; 96 Hr LC50 Cyprinus carpio: 780 mg/L [semi-static]; 96 Hr LC50 Cyprinus carpio: >780 mg/L; 96 Hr LC50 Poecilia reticulata: 30.26-40.75 mg/L [static]

Invertebrate: 48 Hr EC50 water flea: 3.82 mg/L; 48 Hr LC50 Gammarus lacustris: 0.6 mg/L

Cumene (98-82-8)

Fish: 96 Hr LC50 Pimephales promelas: 6.04-6.61 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 4.8 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 2.7 mg/L [semi-static]; 96 Hr LC50 Poecilia reticulata: 5.1 mg/L [semi-static]

Algae: 72 Hr EC50 Pseudokirchneriella subcapitata: 2.6 mg/L

Invertebrate: 48 Hr EC50 Daphnia magna: 0.6 mg/L; 48 Hr EC50 Daphnia magna: 7.9 - 14.1 mg/L [Static]

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility in Soil

No information available for the product.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose in accordance with all applicable regulations. Reprocess whenever possible. Co-process or incinerate in authorized facilities. Incineration should be done in accordance with prevailing municipal, state, and federal laws and standards from local environmental agencies.

Disposal of Contaminated Packaging

Dispose in accordance with all applicable regulations.



Safety Data Sheet

Material Name: Aluminum Paste

SDS ID: TA-001

Section 14 - TRANSPORT INFORMATION

LAND TRANSPORTATION (DOT)

Not regulated as a hazardous material

SEA (IMDG)

Not regulated as a hazardous material

Marine Pollutant: No

AIR (IATA)

Not regulated as a hazardous material

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

	Max. % in Product
Aluminum (7429-90-5) –dust or fume only	85%
Benzene, 1,2,4-trimethyl- (95-63-6)	6.1%
Xylenes (o-, m-, p- isomers) (1330-20-7)	1.0%
Cumene (98-82-8)	0.3%

CERCLA:

Xylene (1330-20-7) 100 lb final RQ; 45.4 kg final RQ as xylene; **Cumene (98-82-8)** 5,000 lb RQ as cumene;

Inventory List Status

US TSCA: All components are listed or exempt.

Canada DSL: All components are listed or exempt.

EINECS: All components are listed or exempt.

Australia (AICS): All components are listed or exempt.

Philippines (PICCS): All components are listed or exempt.

Japanese Inventory: All components are listed or exempt.

Korea Inventory: All components are listed or exempt.

China Inventory: All components are listed or exempt.

New Zealand (NZIoC): All components are listed or exempt.

Mexico (INSQ): All components are listed or exempt.

Taiwan (ECIS): All components are listed or exempt.



Safety Data Sheet

Material Name: Aluminum Paste

SDS ID: TA-001

Section 16 - OTHER INFORMATION

History

Summary of Changes

- Revision 1.0000, 28 October 2011: New MSDS.
- Revision 2.0000, 19 January 2012
- Revision 3.0000, 16 March, 2012: Revised Sections 2, 9, & 15
- Revision 4.0000, 22 March, 2012: Revised Section 9
- Revision 5.0000, 11 April, 2012: Revised Section 1 (added a trade name)
- Revision 6.0000, 25 July, 2012: Revised Sections 1, 2, 3, 8, 9, 11, 12, 15
- Revision 7.0000, 27 February, 2014. Revised Section 8, 14, & 15
- Revision 8.0000, 28 April, 2015: Revised to meet GHS format.
- Revision 9.0000, 01 April, 2016: Revised Sections 2, 3, 8, 11, & 12
- Revision 10.0000, 22 October, 2018: Revised Sections 2, 11 & 15 to reflect updated information on the components.

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; CAS - Chemical Abstracts Service; EC50 - Effective Concentration, 50%; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; Kow - Octanol/water partition coefficient; LD50 - Lethal Dose, 50%; LEL - Lower Explosive Limit; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NIOSH - National Institute for Occupational Safety and Health; STEL - Short-term Exposure Limit; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UEL - Upper Explosive Limit

Other Information

The information set forth in this Safety Data Sheet does not purport to be all-inclusive and should be used only as a guide. While the information and recommendations set forth herein are believed to be accurate, the company makes no warranty regarding such information and recommendations and disclaims all liability from reliance thereon.

End of Sheet TA-001