



AMERICAN TOOTH INDUSTRIES

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SAFETY DATA SHEET

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

PRODUCT NAME	Justi Pyro Liquid
Product Description	Ethylenedioxydiethyl Dimethacrylate
Manufacturer	American Tooth Industries 1200 Stellar Drive Oxnard, CA 93033 805-487-9868 Emergency Phone Number: Infotrac: 800-352-5053
Recommended use	To be used with Pyroplast powder.
Restrictions on use	Industrial use only

2. HAZARDS IDENTIFICATION

Classification (REGULATION (EC) No 1272/2008):

Skin sensitization, 1, H317

Classification (Directive 67/548/EEC):

R43

Signal Word

Warning

Hazard Statements

H317 : May cause an allergic skin reaction.

Symbol



Precautionary statements

P261 : Avoid breathing dust/ fume/ gas/ mist/
vapours/ spray.
P280 : Wear protective gloves/ protective clothing/
eye protection/ face protection.
P333 + P313 : If skin irritation or rash occurs: Get
medical advice/ attention.

Other hazards

Environmental Effects:

Harmful to fish. Readily biodegradable Slightly bioaccumulable.

Physical and chemical hazards:

Formation of toxic products through combustion

Decomposition products: See chapter 10

3. COMPOSITION/INFORMATION ON INGREDIENTS

Statement for unknown toxicity	N/A
Chemical name	Ethylenedioxydiethyl Dimethacrylate
Common name/synonyms	N/A

Impurities and stabilizing additives*

Chemical Name	Weight -%	CAS Number
Benzene	0-5	N/A
Other Esters	0-5	N/A
2,2'-Ethylenedioxydiethyl dimethacrylate	95-100	109-16-0

*Specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret is required.

4. FIRST AID MEASURES

Description of First Aid Measures

Inhalation	Move to fresh air. Oxygen or artificial respiration if needed. If symptoms persist, call a physician.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In the case of skin irritation or allergic reactions see a physician.
Eye Contact	Wash open eyes immediately, abundantly and thoroughly for at least 15 minutes. Seek advice of an ophthalmologist if necessary.
Ingestion	Do NOT induce vomiting. Rinse mouth. Consult a physician if necessary.

Most important symptoms or effects, both acute and delayed:

N/A

Indication of immediate medical attention and special treatment needed:

N/A

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Carbon dioxide (CO ₂), foam, Dry chemical
Unsuitable extinguishing media	High volume water jet
Special hazards arising from substance	Formation of toxic products through combustion:, Carbon oxides
Specific methods:	In the event of fire and/or explosion do not breathe fumes. Use water spray to cool unopened containers. Do not allow run-off from firefighting to enter drains or water courses.
Special protective equipment and Precautions for fire fighters	In the event of fire, wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition. Prohibit contact with skin and eyes. Avoid inhalation of vapour or mist.
Environmental precautions	Do not flush into surface water or sanitary sewer system. Do not release into the environment.
Methods and materials for containment and cleaning up	Shovel into suitable container for disposal. Absorb the remainder with an inert absorbent material (sand, vermiculite, perlite). No sparking tools should be used.

7. HANDLING AND STORAGE

Technical measures/Precautions:	Storage and handling precautions applicable to products: Liquid. Sensitizing. Provide appropriate exhaust ventilation at machinery. Provide showers, eye-baths
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Handling

Remove all sources of ignition. Avoid static electricity build up with connection to earth. In case of insufficient ventilation, wear suitable respiratory equipment

Hygiene measures:

Take off immediately all contaminated clothing. Prohibit contact with skin and eyes. Wash hands before breaks and at the end of workday. When using do not eat, drink or smoke. Wash hands after handling. Remove contaminated clothing and protective equipment before entering eating areas.

Storage

Keep tightly closed in a dry, cool and well-ventilated place. Store in original container. Protect from frost, heat and sunlight. Keep away from open flames, hot surfaces and sources of ignition. Make sure of the presence of air and inhibitor in the drums.

Storage temperature

< 45 °C

Incompatible materials

Acids Bases Oxidizing agents Reducing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Exposure Limit Values Not relevant

Derived No Effect Level (DNEL):

End Use	Inhalation	Ingestion	Skin contact
Workers	48,5 mg/m ³ (LT, SE)		13,9 mg/kg (LT, SE)
Consumers	14,5 mg/m ³ (LT, SE)	8,33 mg/kg (LT, SE)	8,33 mg/kg (LT, SE)

LE : Local effects, SE : Systemic effects, LT : Long term, ST : Short term

Predicted No Effect Concentration:

Compartment:	Value:
Fresh water	0,164 mg/l
Soil	0,274 mg/kg dw
Marine sediment	0,185 mg/kg dw
Fresh water sediment	1,85 mg/kg dw
Effects on waste water treatment plants	10 mg/l
Water (Intermittent release)	0,164 mg/l
Marine water	0,0164 mg/l

8.2. Exposure controls:**Appropriate engineering controls:**

When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Personal protective equipment:

Respiratory protection:

Hand protection:

Eye/face protection:

Skin and body protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Gloves nitrile rubber

butyl-rubber

Products used with solvents

Do not use: Natural Rubber, Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Safety glasses with side-shields, Do not wear contact lenses.

Long sleeved clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical State (20°):	Liquid (20°C) (1.013 hPa)
Color	Slightly Yellowish
Melting Point/Freezing Point	-88 °C (Pressure 1.013 hPa)
Initial Boiling Point	Decomposes on heating.
Boiling Range	Decomposes on heating.
Flash Point	> 150 °C (1.012,25 hPa) (A9 Method (D. 92/69/ECC))
Relative Density	1,092 at 20 °C (Literature)
Solubility	3,6 g/l at 20 °C (OECD Test Guideline 105)
Partition Coefficient: n-octano/water	log Kow : 2,3 (OECD Test Guideline 117)
Auto-ignition Temperature	255 °C at 1.025 hPa (Standard: A15)
Decomposition Temperature	N/A
Viscosity	9,15 mm ² /s , at 20 °C (OECD Test Guideline 114)

10. STABILITY AND REACTIVITY

Reactivity	Stable
Chemical Stability	Stable
Hazardous Reactions	Inhibitors have been added to stabilize this product maintaining air in the storage containers is important to keep inhibitors active
Conditions to avoid	Heat, flames and sparks. Remove all sources of ignition. Take precautionary measures against static discharges.
Materials to avoid	Acids, Bases, Oxidizing agents, Reducing agents
Hazardous Decomposition Products	Formation of toxic products through combustion:, Carbon oxides

11. TOXICOLOGICAL INFORMATION

Identify likely routes of exposure:

Inhalation	N/A
Ingestion	Slightly harmful by ingestion
Skin	Non irritating to skin
Eye	Not irritating to the eyes.

Description of delayed, immediate or chronic effects from short term and long term exposure:

N/A

Description of symptoms:

N/A

12. ECOLOGICAL INFORMATION (If available)

Acute toxicity:

Fish:

Harmful to fish.

LC50, 96 h (Danio rerio (zebra fish)) : 16,4 mg/l
(Method: OECD Test Guideline 203)

Aquatic plants:

Slightly harmful to algae

EC50, 72 h (Pseudokirchneriella subcapitata) : > 100 mg/l (Method: OECD Test Guideline 201, Growth inhibition)

Aquatic toxicity / Long term toxicity:

Aquatic invertebrates: EC10, 21 d (Daphnia magna (Water flea)) : 30,2 mg/l (Method: OECD Test Guideline 211, reproduction)

Aquatic plants: EC10, 72 h (Pseudokirchneriella subcapitata) : 61 mg/l (Method: OECD Test Guideline 201, Growth inhibition)

**Persistence and degradability :
Biodegradation (In water):**

Readily biodegradable

85 % after 28 d (Method: OECD Test Guideline 301B)

**Bioaccumulative potential :
Bioaccumulation:**

Slightly bioaccumulable.

Partition coefficient: n-octanol/water: log Kow : 2,3
(Method: OECD Test Guideline 117)

Mobility in soil - Distribution among environmental compartments:

Vapor pressure:

0,077 Pa, 20 °C, (Method: OECD Test Guideline 104)

Surface tension:

Not relevant (due to the chemical structure)

Absorption / desorption:

Slight adsorption

log Koc: 1,19 - 1,89 (Method: calculated)

Results of PBT and vPvB assessment :

According to REACH regulation, annex XIII, the substance does not meet PBT and vPvB criteria.

Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS (If applicable)

Waste treatment:

Disposal of product:

Do not release into the environment. Dispose of in accordance with local regulations.

Disposal of packaging:

Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION (If applicable)

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION (If available)

Chemical Safety Assessment:

A Chemical Safety Assessment has been carried out for this substance.

INVENTORIES:

EINECS:	Conforms to
TSCA:	Conforms to
AICS:	Conforms to
DSL:	Conforms to
ENCS (JP):	Conforms to
KECI (KR):	Conforms to
PICCS (PH):	Conforms to
IECSC (CN):	Conforms to
NZIOC:	Conforms to

16. OTHER INFORMATION

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