



SAFETY DATA SHEET
TPV-2 & F THINNER

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Revision Date: 5/5/2010
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Version: 1.9

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

Inkcups Now	Telephone	978-646-8980
20 Locust St	Fax	978-646-8981
Danvers, MA 01923	Emergency telephone	Chemtrec 800-424-9300
Product name	TPV-2 & F THINNER	
Product code	No data	
Product Use Description	No data	

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid,, colourless

WARNING! FLAMMABLE LIQUID AND VAPOR. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN, CAUSE IRRITATION AND BURNS. MAY BE HARMFUL IF INHALED OR SWALLOWED.

Potential Health Effects

Exposure routes

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

Eye contact

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin contact

May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of skin, and skin burns. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Ingestion

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

Inhalation

Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.). Breathing air containing n-butyl acetate, which results from its use in aerosol applications, may cause delayed lung injury.

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Skin, lung (for example, asthma-like conditions)

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), narcosis (dazed or sluggish feeling)

Target Organs

No data

Carcinogenicity

There is no information available. The chance of this material causing cancer is unknown. This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive hazard

This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components	CAS-No.	Concentration
N-BUTYL ACETATE	123-86-4	<=100%

4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended. Give individual two glasses of milk or water to drink. If symptoms develop, seek medical attention.

Inhalation

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen. If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Notes to physician

Hazards: No information available.

Treatment: No information available.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Foam, Alcohol-resistant foam, Carbon dioxide (CO₂), Dry chemical

Hazardous combustion products

May form: carbon dioxide and carbon monoxide, Hydrocarbons

Precautions for fire-fighting

Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. Water may be ineffective for extinguishment unless used under favorable conditions by experienced fire fighters. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

NFPA Flammable and Combustible Liquids Classification

Flammable Liquid Class IC

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

For personal protection see section 8. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.

Environmental precautions

No data

Methods for cleaning up

Absorb liquid on vermiculite, floor absorbent or other absorbent material.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Emergency eyewash fountains and safety showers should be available in the immediate vicinity of potential exposure. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special

precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77. Warning. Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

Storage

Store in a cool, dry, ventilated area, away from incompatible substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

N-BUTYL ACETATE		123-86-4
ACGIH	time weighted average	150 ppm
ACGIH	Short term exposure limit	200 ppm
NIOSH	Recommended exposure limit (REL):	150 ppm
NIOSH	Recommended exposure limit (REL):	710 mg/m3
NIOSH	Short term exposure limit	200 ppm
NIOSH	Short term exposure limit	950 mg/m3
OSHA Z1	Permissible exposure limit	150 ppm
OSHA Z1	Permissible exposure limit	710 mg/m3
OSHA Z1A	time weighted average	150 ppm
OSHA Z1A	time weighted average	710 mg/m3
OSHA Z1A	Short term exposure limit	200 ppm
OSHA Z1A	Short term exposure limit	950 mg/m3
US CA OEL	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):	150 ppm
US CA OEL	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):	710 mg/m3
US CA OEL	Short term exposure limit	200 ppm
US CA OEL	Short term exposure limit	950 mg/m3

General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Eye protection

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Skin and body protection

Wear resistant gloves (consult your safety equipment supplier).

To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Respiratory protection

If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH-approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Form	liquid
Colour	colourless
Odour	ester-like
Boiling point/boiling range	(+/- 5.4) 258.00 °F @ 760.00 mmHg
Melting point/range	-101 °F / -74 °C
pH	No data
Flash point	28.88 °C Tag closed cup
Evaporation rate	1 (n-Butyl Acetate)
Lower explosion limit/Upper explosion limit	1.7 %(V) / 7.6 %(V)
Vapour pressure	8.000 hPa @ 68.00 °F
Vapour density	4.00 (AIR=1)

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Density	0.882 g/cm ³ @ 68 °F / 20 °C 7.35 lb/gal @ 68 °F / 20 °C
Solubility	slightly soluble in water
Partition coefficient: n-octanol/water	No data
log Pow	1.82
Autoignition temperature	765.0 °F / 407.2 °C

10. STABILITY AND REACTIVITY

Stability

Stable.

Conditions to avoid

None known.

Incompatible products

Avoid contact with: Acids, alkalis, Amines, organic absorbents such as sawdust, peat moss, ground corn cobs, etc., Strong oxidizing agents

Hazardous decomposition products

carbon dioxide and carbon monoxide, Hydrocarbons

Hazardous reactions

Product will not undergo hazardous polymerization.

Thermal decomposition

No data

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

N-BUTYL ACETATE : LD 50 Rat: 10.8 g/kg

Acute inhalation toxicity

N-BUTYL ACETATE : LC 50
Wistar rat: 160 mg/L, 4 h

Acute dermal toxicity

N-BUTYL ACETATE : LD 50

Rabbit:
17,600 mg/kg

12. ECOLOGICAL INFORMATION

Biodegradability

N-BUTYL ACETATE : no data available

Bioaccumulation

N-BUTYL ACETATE : no data available

Ecotoxicity effects

Toxicity to fish

N-BUTYL ACETATE : 96 h LC 50 Pimephales promelas (fathead minnow):
17.00 - 19.00 mg/L
Method: Flow through
Mortality96 h LC 50 Fathead minnow (Pimephales
promelas): 17.00 - 19.00 mg/L
Method: Flow through
Mortality96 h LC 50 Brachydanio rerio (zebra fish):
62.00 mg/L
Method: Static
Mortality

Toxicity to daphnia and other aquatic invertebrates.

N-BUTYL ACETATE : 24 h LC 50 Water flea (Daphnia magna): 205.00 mg/L
Method: Static
Mortality

Toxicity to algae

N-BUTYL ACETATE : no data available

Toxicity to bacteria

N-BUTYL ACETATE : no data available

Biochemical Oxygen Demand (BOD)

N-BUTYL ACETATE : no data available

Chemical Oxygen Demand (COD)

N-BUTYL ACETATE : no data available

Additional ecological information

N-BUTYL ACETATE : no data available

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Dispose of in accordance with all applicable local, state and federal regulations. Do not discharge effluent containing this product into lakes, streams, ponds or estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority.

14. TRANSPORT INFORMATION

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
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U.S. DOT - ROAD

UN 1123	Butyl acetates	3		III	
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U.S. DOT - RAIL

UN 1123	Butyl acetates	3		III	
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U.S. DOT - INLAND WATERWAYS

UN 1123	Butyl acetates	3		III	
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TRANSPORT CANADA - ROAD

UN 1123	BUTYL ACETATES	3		III	
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TRANSPORT CANADA - RAIL

UN 1123	BUTYL ACETATES	3		III	
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TRANSPORT CANADA - INLAND WATERWAYS

UN 1123	BUTYL ACETATES	3		III	
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INTERNATIONAL MARITIME DANGEROUS GOODS

UN 1123	BUTYL ACETATES	3		III	
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INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

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UN	1123	Butyl acetates	3	III
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INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

UN	1123	Butyl acetates	3	III
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MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

UN	1123	ACETATOS DE BUTILO	3	III
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*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

SARA Hazard Classification

Fire Hazard

Acute Health Hazard

New Jersey RTK Label Information

N-BUTYL ACETATE 123-86-4

Pennsylvania RTK Label Information

N-BUTYL ACETATE 123-86-4

Notification status

US. Toxic Substances Control Act	y (positive listing)
Switzerland. Consolidated Inventory	y (positive listing)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	y (positive listing)
China. Inventory of Existing Chemical Substances	y (positive listing)
Korea. Toxic Chemical Control Law (TCCL) List	y (positive listing)
Japan. Kashin-Hou Law List	y (positive listing)

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Australia. Industrial Chemical (Notification and Assessment) Act y (positive listing)
 EU. EINECS y (positive listing)
 Canada. Canadian Environmental Protection Act (CEPA). y (positive listing)
 Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)

Reportable quantity - Product

US. EPA CERCLA Hazardous Substances (40 CFR 302) 5000 lbs

Reportable quantity-Components

N-BUTYL ACETATE 123-86-4 5000 lbs

	HMIS	NFPA
Health	1*	1
Flammability	3	3
Physical hazards	0	
Instability		0
Specific Hazard	--	--

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.