

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Thinner TPV2

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### Use of the substance/preparation

Pad printing auxiliary

#### Identified Uses

SU3	Industrial uses: Uses of substances as such or in preparations at industrial sites
SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
PROC1	Use in closed process, no likelihood of exposure
PROC2	Use in closed, continuous process with occasional controlled exposure
PROC3	Use in closed batch process (synthesis or formulation)
PROC4	Use in batch and other process (synthesis) where opportunity for exposure arises
PROC5	Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
PROC8a	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
PROC8b	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
PROC10	Roller application or brushing
PROC11	Non industrial spraying
PROC13	Treatment of articles by dipping and pouring
PROC19	Hand-mixing with intimate contact and only PPE available
ERC4	Industrial use of processing aids in processes and products, not becoming part of articles
ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8d	Wide dispersive outdoor use of processing aids in open systems

#### Uses advised against

SU21 Consumer uses: Private households (= general public = consumers)

### 1.3. Details of the supplier of the safety data sheet

#### Address

ITW Trans Tech  
475 N. Gary Avenue  
Carol Stream, IL 60188

Ph 630-752-4000  
www.itwtranstech.com

### 1.4. Emergency telephone number

352-323-3500 InfoTrac

## SECTION 2: Hazards identification

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## 2.1. Classification of the substance or mixture

### Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)  
Flam. Liq. 3 H226  
STOT SE 3 H336

## 2.2. Label elements

### Labelling according to regulation (EC) No 1272/2008

#### Hazard pictograms



#### Signal word

Warning

#### Hazard statements

H226 Flammable liquid and vapour.  
H336 May cause drowsiness or dizziness.

#### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P271 Use only outdoors or in a well-ventilated area.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P312 Call a POISON CENTER or doctor if you feel unwell.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

#### Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains n-Butyl acetate

#### Supplemental information

EUH066 Repeated exposure may cause skin dryness or cracking.

## 2.3. Other hazards

No special hazards have to be mentioned.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Chemical characterization

Solvent mixture of esters

#### Hazardous ingredients

##### n-Butyl acetate

CAS No. 123-86-4  
EINECS no. 204-658-1  
Registration no. 01-2119485493-29  
Concentration >= 50 < 100 %

Classification (Regulation (EC) No. 1272/2008)  
Flam. Liq. 3 H226  
STOT SE 3 H336

## **SECTION 4: First aid measures**

### **4.1. Description of first aid measures**

#### **General information**

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious place in recovery position and seek medical advice.

#### **After inhalation**

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

#### **After skin contact**

Remove contaminated clothing. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.

#### **After eye contact**

Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

#### **After ingestion**

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

### **4.2. Most important symptoms and effects, both acute and delayed**

Until now no symptoms known so far.

### **4.3. Indication of any immediate medical attention and special treatment needed**

#### **Hints for the physician / treatment**

Treat symptomatically

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

Recommended: alcohol resistant foam, CO<sub>2</sub>, powders, water spray/mist, Not be used for safety reasons: water jet

### **5.2. Special hazards arising from the substance or mixture**

In the event of fire the following can be released: Carbon monoxide (CO); Carbon dioxide (CO<sub>2</sub>); dense black smoke

### **5.3. Advice for firefighters**

#### **Special protective equipment for fire-fighting**

Cool closed containers exposed to fire with water. Do not allow run-off from fire fighting to enter drains or water courses.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

Exclude sources of ignition and ventilate the area. Avoid breathing vapours. Refer to protective measures listed in Sections 7 and 8.

### **6.2. Environmental precautions**

Do not allow to enter drains or waterways. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

### 6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Clean preferably with a detergent - avoid use of solvents.

### 6.4. Reference to other sections

Information regarding Safe handling, see Section 7. Information regarding personal protective measures, see Section 8. Information regarding waste disposal, see Section 13.

## **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

#### **Advice on safe handling**

Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear anti-static footwear and clothing and floors should be of the conducting type. Isolate from sources of heat, sparks and open flame. No sparking tools should be used. Avoid skin and eye contact. Avoid the inhalation of particulates and spray mist arising from the application of this mixture. Smoking, eating and drinking shall be prohibited in application area. For personal protection see Section 8. Never use pressure to empty: container is not a pressure vessel. Always keep in containers of same material as the original one. Comply with the health and safety at work laws. Do not allow to enter drains or water courses.

#### **Advice on protection against fire and explosion**

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

#### **Classification of fires / temperature class / Ignition group / Dust explosion class**

Classification of fires                      B (Combustible liquid substances)

Temperature class                            T2

### 7.2. Conditions for safe storage, including any incompatibilities

#### **Requirements for storage rooms and vessels**

Electrical installations/working materials must comply with the local applied technological safety standards. Storage rooms in which filling operations take place must have a conducting floor. Store in accordance with national regulation

#### **Hints on storage assembly**

Store away from oxidising agents, from strongly alkaline and strongly acid materials.

#### **Further information on storage conditions**

Observe label precautions. Store between 15 and 30 °C in a dry, well ventilated place away from sources of heat and direct sunlight. Keep container tightly closed. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

### 7.3. Specific end use(s)

Pad printing auxiliary

## **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

#### **Exposure limit values**

n-Butyl acetate

Safety data sheet in accordance with regulation (EC) No 1907/2006

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List	EH40			
Type	WEL			
Value	724	mg/m <sup>3</sup>	150	ppm(V)
Short term exposure limit	966	mg/m <sup>3</sup>	200	ppm(V)
Status:	2011			

**Derived No/Minimal Effect Levels (DNEL/DMEL)**

**n-Butyl acetate**

Type of value	Derived No Effect Level (DNEL)			
Reference group	Worker			
Duration of exposure	Short term			
Route of exposure	inhalative			
Mode of action	Systemic effects			
Concentration	960			mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)			
Reference group	Worker			
Duration of exposure	Short term			
Route of exposure	inhalative			
Mode of action	Local effects			
Concentration	960			mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)			
Reference group	General Population			
Duration of exposure	Long term			
Route of exposure	inhalative			
Mode of action	Systemic effects			
Concentration	480			mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)			
Reference group	Worker			
Duration of exposure	Long term			
Route of exposure	inhalative			
Mode of action	Local effects			
Concentration	480			mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)			
Reference group	General Population			
Duration of exposure	Short term			
Route of exposure	inhalative			
Mode of action	Systemic effects			
Concentration	859,7			mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)			
Reference group	General Population			
Duration of exposure	Short term			
Route of exposure	inhalative			
Mode of action	Local effects			
Concentration	859,7			mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)			
Reference group	General Population			
Duration of exposure	Long term			
Route of exposure	inhalative			
Mode of action	Systemic effects			
Concentration	102,34			mg/m <sup>3</sup>

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Type of value	Derived No Effect Level (DNEL)	
Reference group	General Population	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	102,34	mg/m <sup>3</sup>

### Predicted No Effect Concentration (PNEC)

#### n-Butyl acetate

Type of value	PNEC	
Type	Freshwater	
Concentration	0,18	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,018	mg/l
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	0,981	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	0,0981	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0,0903	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	35,6	mg/l
Type of value	PNEC	
Type	Water (intermittent release)	
Concentration	0,36	mg/l

## 8.2. Exposure controls

### Exposure controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn.

### Respiratory protection

If workers are exposed to concentrations above the exposure limit they must use appropriate, certified respirators. Full mask, filter A

### Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

For prolonged or repeated handling nitrile rubber gloves with textile undergloves are required.

Material thickness > 0,5 mm

Breakthrough time < 30 min

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred.

**Eye protection**

Use safety eyewear designed to protect against splash of liquids.

**Body protection**

Cotton or cotton/synthetic overalls or coveralls are normally suitable.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

<b>Form</b>	Liquid		
<b>Colour</b>	colourless, clear		
<b>Odour</b>	solvent-like		
<b>Odour threshold</b>			
Remarks	No data available		
<b>pH value</b>			
Remarks	Not applicable		
<b>Melting point</b>			
Remarks	not determined		
<b>Freezing point</b>			
Remarks	not determined		
<b>Initial boiling point and boiling range</b>			
Value	appr. 124		°C
Pressure	1.013	hPa	
Source	Literature value		
<b>Flash point</b>			
Value	28		°C
Method	ASTM D 6450 (CCCFP)		
<b>Evaporation rate (ether = 1) :</b>			
Remarks	not determined		
<b>Flammability (solid, gas)</b>			
Not applicable			
<b>Upper/lower flammability or explosive limits</b>			
Lower explosion limit	appr. 1,2		%(V)
Upper explosion limit	appr. 7,5		%(V)
Source	Literature value		
<b>Vapour pressure</b>			
Value	appr. 13		hPa
Temperature	20	°C	
Method	calculated		
<b>Vapour density</b>			
Remarks	not determined		
<b>Density</b>			
Value	0,880		g/cm³
Temperature	20	°C	

Method DIN EN ISO 2811

**Solubility in water**

Remarks partially miscible

**Partition coefficient: n-octanol/water**

Remarks Not applicable

**Ignition temperature**

Value appr. 420 °C

Source Literature value

**Efflux time**

Value < 12 s

Method DIN 53211 4 mm

**Explosive properties**

evaluation no

**Oxidising properties**

evaluation None known

**9.2. Other information**

**Other information**

The physical specifications are approximate values and refer to the used safety relevant component(s).

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No hazardous reactions when stored and handled according to prescribed instructions.

**10.2. Chemical stability**

Stable under recommended storage and handling conditions (see section 7).

**10.3. Possibility of hazardous reactions**

Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

**10.4. Conditions to avoid**

When exposed to high temperatures may produce hazardous decomposition products.

**10.5. Incompatible materials**

No hazardous reactions when stored and handled according to prescribed instructions.

**10.6. Hazardous decomposition products**

See chapter 5.2 (Firefighting measures - Special hazards arising from the substance or mixture).

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute oral toxicity (Components)**

**n-Butyl acetate**

Species	rat (female)	
LD50	10760	mg/kg
Method	OECD 423	

**Acute dermal toxicity (Components)**

**n-Butyl acetate**

Species	Rats (male/female)
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LD50	14112	mg/kg
Method	OECD 402	

**Acute inhalative toxicity (Components)****n-Butyl acetate**

Species	Rats (male/female)	
LC50	> 21	mg/l
Duration of exposure	4	h
Method	OECD 403	

**Experience in practice**

Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. The liquid splashed in the eyes may cause irritation and reversible damage. Ingestion may cause nausea, diarrhoea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

**Other information**

There are no data available on the mixture itself.

The mixture has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly.

**SECTION 12: Ecological information****12.1. Toxicity****General information**

There are no data available on the mixture itself. Do not allow to enter drains or water courses. The mixture has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is not classified as dangerous for the environment.

**12.2. Persistence and degradability****General information**

No data available

**12.3. Bioaccumulative potential****General information**

There are no data available on the mixture itself.

**Partition coefficient: n-octanol/water**

Remarks	Not applicable
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**12.4. Mobility in soil****General information**

There are no data available on the mixture itself.

**12.5. Results of PBT and vPvB assessment****General information**

There are no data available on the mixture itself.

**12.6. Other adverse effects****General information**

There are no data available on the mixture itself.

## **SECTION 13: Disposal considerations**

### **13.1. Waste treatment methods**

#### **Disposal recommendations for the product**

Do not allow to enter drains or water courses.

Wastes and emptied containers should be classified in accordance with relevant national regulation.

The European Waste Catalogue classification of this product, when disposed of as waste is

EWC waste code 08 03 12\* waste ink containing dangerous substances

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

For further information contact your local waste authority.

#### **Disposal recommendations for packaging**

Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers.

Empty containers must be scrapped or reconditioned.

Not emptied containers are hazardous waste (waste code number 150110).

## **SECTION 14: Transport information \*\*\***

### **Land transport ADR/RID \*\*\***

#### **14.1. UN number**

UN 1263

#### **14.2. UN proper shipping name**

PAINT RELATED MATERIAL

#### **14.3. Transport hazard class(es)**

Class 3

Label 3

#### **14.4. Packing group**

Packing group III

Special provision 640E

Limited Quantity 5 I

Transport category 4

#### **14.5. Environmental hazards**

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Tunnel restriction code D/E

### **Marine transport IMDG/GGVSee \*\*\***

#### **14.1. UN number**

UN 1263

#### **14.2. UN proper shipping name**

PAINT RELATED MATERIAL

#### **14.3. Transport hazard class(es)**

Class 3

#### **14.4. Packing group**

Packing group III

#### **14.5. Environmental hazards**

no

### **Air transport ICAO/IATA \*\*\***

#### **14.1. UN number**

UN 1263

#### **14.2. UN proper shipping name**

PAINT RELATED MATERIAL

#### **14.3. Transport hazard class(es)**

Class 3  
**14.4. Packing group**  
 Packing group III  
**14.5. Environmental hazards**  
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**Information for all modes of transport**

**14.6. Special precautions for user**

Transport within the user's premises:  
 Always transport in closed containers that are upright and secure.  
 Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Other information**

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

no

**SECTION 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Major-accident categories acc. 96/82/EC**

Category	6	Flammable	5.000.000	kg	50.000.000	kg
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**VOC**

VOC (EU)	99,01	%	871,3	g/l
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**Other information**

The product does not contain substances of very high concern (SVHC).

**Other information**

All components are contained in the TSCA inventory or exempted.  
 All components are contained in the AICS inventory.  
 All components are contained in the PICCS inventory.  
 All components are contained in the DSL inventory.  
 All components are contained in the IECSC inventory.  
 All components are contained in the ENCS inventory.  
 All components are contained in the ECL inventory.

**15.2. Chemical safety assessment**

For this preparation a chemical safety assessment has not been carried out.

**SECTION 16: Other information**

**Hazard statements listed in Chapter 3**

H226	Flammable liquid and vapour.
H336	May cause drowsiness or dizziness.

**CLP categories listed in Chapter 3**

Flam. Liq. 3	Flammable liquid, Category 3
STOT SE 3	Specific target organ toxicity - single exposure, Category 3

**Supplemental information**

Relevant changes compared with the previous version of the safety data sheet are marked with: \*\*\*  
 This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.  
 The information in this Safety Data Sheet is based on the present state of knowledge and current legislation.  
 It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.

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The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions.  
As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with.  
The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation.

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**Trusted Partner for Your Product Decorating Needs**

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