

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Trade Name** DURA INDUSTRIAL CLEANING THINNERS (DI028)  
**Synonyms** Solvent.  
**Description** Medium aromatic solvent  
**Dura Paints (PTY) Ltd** 5 Wakefield Road; Founders View South; Edenvale; 1610; South Africa.

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

**Chemical Class**  
**Classification** Moderately Hazardous  
**Comment** Liquid Form  
**Hazardous and / or other relevant components**

### A. HAZARDOUS COMPONENTS

### B. NON HAZARDOUS COMPONENTS

**R-PHRASES:** R10

## 3. HAZARDS IDENTIFICATION

**Physical state and appearance:** Liquid  
**Emergency overview:** WARNING!  
 FLAMMABLE LIQUID AND VAPOUR.  
 VAPOUR MAY CAUSE FLASH FIRE.

Keep away from heat, sparks and flame. Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

**Routes of entry:** Eye contact. Ingestion. Inhalation. Skin contact.

**Potential acute health effects**

**Eyes:** Hazardous in case of eye contact

**Skin:** Hazardous in case of skin contact. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

**Inhalation:** Hazardous in case of inhalation

**Ingestion:** Hazardous in case of ingestion

## 4. FIRST AID MEASURE

**Eye contact:** Check for and remove any contact lenses. Immediately flush the eyes with running water for at least 15 minutes, keep eyelids open. Cold water may be used. Get medical attention.

**Skin contact:** After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing. Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. The product is a solvent irritating for skin. Xylenes, Trimethyl benzene that is (are) insoluble in water. If the victim still suffers after a long term rinsing with water, we suggest rinsing the contaminated area (SKIN OR EYES) with lukewarm pasteurized milk. After the pain has stopped, rinse thoroughly with running water to avoid possible infection. Milk is a very good emulsifier and it is also very mild for skin and eyes. Seek immediate medical attention.

**Inhalation:** If inhaled, remove to fresh air. If not breathing apply artificial respiration. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is laboured, give oxygen. Get medical attention. WARNING! It may be hazardous to the person performing aid to give CPR when inhaled material is toxic, infectious or corrosive.

**Ingestion:** DO NOT induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing,

perform mouth-to-mouth resuscitation. Seek immediate medical attention.

**Notes to physician:** Support respiratory and cardiovascular function.

## 5. FIRE FIGHTING MEASURES

Flammability of the product:	Flammable
Fire fighting media and instructions	Use alcohol foam. Use DRY chemical powder or carbon dioxide. Keep surrounding containers and area cool with water sprays.
Protective clothing (fire)	Be sure to use an approved/certified respirator or equivalent.

## 6. ACCIDENTAL RELEASE MEASURES

Small spill or leak	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
Large spill or leak	Poisonous flammable liquid, insoluble or very slightly soluble in water. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. DO NOT get water inside container. DO NOT touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all sources of ignition. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities

## 7. HANDLING AND STORAGE

Safe handling advice	Keep locked. Keep containers closed. Keep away from heat and sources of ignition (sparks or flames). Stop leak without risk. Absorb with DRY earth, sand or other non-combustible material. DO NOT get water inside the container. DO NOT touch the spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all sources of ignition. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.
Storage information:	Flammable materials should be stored in a separate safety storage cabinet or room. Keep away from heat. Keep away from sources of ignition. Keep container tightly closed. Keep in a cool, well-ventilated place. Ground all equipment containing material. A refrigerated room would be preferred for materials with a flash point lower than 37.8°C (100°F).

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapour below their respective threshold limit values. Ensure that eyewash stations and safety showers are proximal to the work-station location.
<b>Personal protection</b>	
Eyes	Splash goggles.
Body	Chemical resistant protective suite.
Respiratory	Vapour respirator. Be sure to use an approved/certified or equivalent. Wear appropriate respirator when ventilation is inadequate.
Hands	Butyl rubber gloves.
Feet	Chemical resistant safety boots.
<b>Protective clothing</b>	Splash goggles. Full chemical resistant protective suit. Vapor respirator. Butyl gloves. Chemical resistant boots.
<b>Personal protection in case of large spills</b>	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State &amp; Appearance</b>	Liquid	<b>Colour</b>	Clear, colorless (Light)
<b>Odour</b>	No data available	<b>Water solubility</b>	Easily soluble in methanol, diethyl ether. Soluble in n-octanol. Insoluble in cold water, hot water.
<b>Taste</b>	No data available		

# MATERIAL SAFETY DATA SHEET

<b>Initial Boiling Point</b>	55°C	<b>Final Boiling Point</b>	135°C
<b>Boiling / Condensation Point</b>	56°C 60 °C - 73 °C	<b>Molecular Weight</b>	Not applicable
<b>pH (1% Soln/Water)</b>	Neutral	<b>Molecular Formula</b>	Not applicable
<b>Physical Chemical Components</b>	Not available	<b>Melting / Freezing point</b>	May start to solidify at -70 °C based on data for: Glycol ether.
<b>Flashpoint</b>	< 0° C	<b>Volatility</b>	Weighted average: -103.95 °C
<b>Specific gravity</b>	0.790 – 0.800 (water=1)		100% (v/v) (propyl alcohol). Weighted average: 100% (v/v)
<b>Odor threshold</b>	The lowest know value is 0.1ppm (glycol ether). Weighted average: 15.97ppm		100% (w/w) (propyl alcohol) weighted average: 100% (w/w)
<b>Evaporation threshold</b>	1.109 compared to Butyl acetate	<b>VOC</b>	100 (%)
<b>LogK<sub>ow</sub></b>	No data available.	<b>Ionicity (in water)</b>	No data available
<b>Dispersion properties</b>	Is not dispersed in cold water, hot water, methanol, diethyl ether, N-octanol. See solubility in methanol, diethyl ether, N-octanol.	<b>Solubility</b>	Soluble in n-octanol, diethyl ether, methanol
Aromatics	±30%	Actives	±20%
Alcohol	±35%	Hydrocarbon	±15%

NAME	EXPOSURE LIMITS
Aromatics	<p><b>ACGIH TLV (USA, 2003)</b> TWA: 50ppm 8 hrs</p> <p><b>OSHA PEL Z2 (USA, 2003)</b> TWA: 200ppm 8 hrs CEIL: 300ppm</p> <p><b>NIOSH (USA, 1997)</b> STEL: 150ppm 15 min STEL: 560 mg/m<sup>3</sup></p> <p><b>ACGIH TLV (USA, 2003)</b> TWA: 100ppm 8 hrs STEL: 150ppm 15min</p> <p><b>OSHA PEL Z1 (USA, 1993)</b> : 100ppm :435mg/m<sup>3</sup></p> <p><b>NIOSH (USA, 1997)</b> STEL: 150ppm 15 min STEL: 665mg/m<sup>3</sup> 15 min</p>
Alcohol	<p><b>ACGIH TLV (USA, 2003)</b> STEL: 250ppm 15 min TWA: 200ppm 8 hrs</p> <p><b>OSHA PEL Z1 (USA, 1993)</b> TWA: 200ppm 8 hrs TWA: 500mg/m<sup>3</sup></p>
Actives	<p><b>ACGIH TLV (USA, 2002)</b> TWA: 500ppm 8 hrs TWA: 1188mg/m<sup>3</sup> 8 hrs STEL: 750ppm 15 min STEL: 1782mg/m<sup>3</sup></p> <p><b>OSHA (USA, 2002)</b> TWA: 750ppm 8 hrs TWA: 1800mg/m<sup>3</sup> 8 hrs STEL: 1000ppm 15min STEL: 2400mg/m<sup>3</sup> 15min</p> <p><b>ACGIH TLV (USA, 2003)</b> TWA: 20ppm 8 hrs</p> <p><b>OSHA PEL Z1 (USA, 1993)</b> : 50ppm : 240mg/m<sup>3</sup></p> <p><b>NIOSH REL (USA, 1997). SKIN</b> REL: 5ppm 40 hrs</p>

Hydrocarbon	REL: 24mg/m <sup>3</sup> Not Available. <b>OSHA PEL Z1 (USA, 2002)</b> TWA: 150ppm 8hrs TWA: 450mg/m <sup>3</sup> hrs
Odor	<b>No data available</b>
Taste	<b>No data available</b>

## 10. STABILITY AND REACTIVITY

<b>Stability and reactivity</b>	The product is stable.
<b>Conditions of instability</b>	Sparks, flames, heat and other ignition sources.
<b>Incompatibility with various substances</b>	Reactive with oxidizing agents, reducing agents, organic materials, acids, alkalis and metals.
<b>Hazardous decomposition products</b>	No data available
<b>Hazardous polymerization</b>	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

Toxicity to animals	Acute oral toxicity (LD50): 1441mg/kg [Rat] (calculated value for mixture) Acute dermal toxicity (LD50): 220mg/kg [Rabbit] (Glycol ether) Acute toxicity of the gas (LC50): 450 ppm 4 hour(s) [Rat]. (Glycol ether)
<b>Chronic effects on humans</b>	<b>CARCINOGENIC EFFECTS</b> classified A4 (Not classifiable for human or animal). By ACGIH, 3 (not classifiable for human) by IARC [Toluene]. Classified A\$ (Not classifiable for human or animal) by ACGIH, 3 (Not classifiable for human) by IARC [xylenes]. Classified None, by OSHA, [Acetone]. Classified A4 (not classifiable for human or animal) by ACGIH, D (Not classifiable for human or animal), by EPA [Acetone]. Classified A3 (Proven for animal) by ACGIH [Propyl alcohol]. Classified None, by OSHA, NONE. By NIOSH [propyl alcohol]. Classified 4 (probably not for human) by IARC, none, by NIOSH [butan-2-ol]. Classified none, by NIOSH. Classified None by NIOSH [2-Methylpropan-1-ol]. Classified A3 (proven for animal) by ACGIH [Glycol ether]. <b>MUTAGENIC EFFECTS:</b> Non-mutagenic for bacteria and/or yeast [Xylenes]. <b>TERATOGENIC EFFECTS</b> classified none. For human [Acetone].
<b>Other toxic effects on humans</b>	No additional remark.
<b>Special remarks on toxicity to animals</b>	No additional remark.
<b>Special remarks on chronic effects on humans</b>	Inhalation of vapours may cause dizziness, an irregular heartbeat, narcosis, nausea or asphyxiation (Toluene)
<b>Special remarks on other toxic effects on humans</b>	No additional remark.


## 12. ECOLOGICAL INFORMATION

Ecotoxicity	No data available
<b>BOD and COD</b>	No data available
<b>Biodegradable/OECD</b>	No data available
<b>Mobility</b>	No data available
<b>Products of degradation</b>	these products are carbon oxides (CO, CO <sub>2</sub> ) and water
<b>Toxicity of the products of biodegradation</b>	No data available
<b>Special remarks on the products of biodegradation</b>	No food chain concentration potential (Propyl alcohol)

## 13. DISPOSAL CONSIDERATIONS

**Waste information** Waste must be disposed of in accordance with federal, state and local environmental control regulations.  
**Waste stream** No data available

## 14. TRANSPORT INFORMATION

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
<b>DOT Classification</b>	UN 1993	Flammable liquid N.O.S	ADR CLASS 3: Flammable liquid.	II		Reportable quantity <b>100 lbs. (45.36 kg)</b>
<b>TDG Classification</b>	UN 1993	Flammable liquid N.O.S	ADN CLASS 3: Flammable liquid.	II		
<b>IMDG Classification</b>	UN 1993	Flammable liquid N.O.S	IMDG CLASS 3: Flammable liquid.	II		
<b>IATA-DGR Classification</b>	UN 1993	Flammable liquid N.O.S	IATA CLASS 3: Flammable liquid.	II		

## 15. REGULATORY INFORMATION

**HCS Classification** HCS Class: Flammable liquid having flash point lower than 37.8°C  
 cCass: irritating substance.

**U.S. Federal regulations**  
 TSCA 4(a) proposed test rules: Butan-2-ol  
 TSCA5(e) substance consent order: Aliphatic ketone; 2-Methylpropan-1-ol  
 TSCA 8(a) PAIR: Trimethyl benzene (isomers); Butan-2-ol; 2-Methylpropan-1-ol  
 TSCA8(a) IUR: Aliphatic ketone; 2-Methylpropan-1-ol  
 TSCA 8(b) inventory: Toluene; Xylenes; Ethyl toluene; trimethyl benzene (isomers), Aliphatic ketone; propyl alcohol; butan-2-ol; 2-Methylpropan-1-ol; Glycol ether  
 TSCA 8(d) H and S data reporting; Toluene; xylenes; Butan-2-ol; Glycol ether  
 TSAC 12(b) one time export; Aliphatic ketone

SARA 302/304/311/312 extremely hazardous substances: No reports were found.  
 SARA 302/304 emergency planning and notification: No products were found.  
 SARA 302/304/311/312 hazardous chemicals: Butan-2-ol, 2-Methylpropan-1-ol  
 SARA 311/312 MSDS distribution- chemical inventory – hazardous identification: Butan-2-ol;  
 Fire hazard, immediate (acute) health Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; 2-Methylpropan-1-ol: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard.  
 SARA 313 toxic chemical notification and release reporting: Xylenes 9.996%; Butan-2-ol 3.1482%

**State regulations**  
 Clean water act (CWA) 307: Toluene  
 Clean water act (CWA) 311: Toluene; xylenes.  
 Clean water act (CAA) 112 accidental release prevention: Toluene; xylenes  
 Clean water act (CAA) 112 regulated flammable substances: No products were found.  
 Clean water act (CAA) 112 regulated toxic substances: No products were found.  
 Connecticut hazardous material survey: propyl alcohol  
 Illinois toxic substances disclosure to employee act: Glycol ether.  
 Illinois chemical safety act: Propyl alcohol; Glycol ether.

**State regulations**

Rhode island RTK hazardous substances: Toluene; Trimethyl benzene (isomers), Aliphatic Ketone; propyl alcohol; Butan-2-ol; 2-Methylpropan -1-ol, Glycol ether.  
 Pennsylvania RTK: Toluene; Xylene ( environmental hazard); Trimethyl benzene (isomers),  
 Aliphatic ketone; (environmental hazard), Propyl alcohol; Butan-2-ol (environmental hazard, generic environmental hazard); 2-methylpropan-1-ol:(environmental hazard, generic environmental hazard); Glycol ether.  
 Florida: Toluene; Trimethyl benzene (isomers); Aliphatic ketone; Propyl alcohol; Butan-2-ol; 2 methylpropan-1-ol.  
 Minnesota: toluene; Xylenes; Trimethyl benzene (isomers); Aliphatic; Propyl alcohol; butan-2-ol; 2-methylpropan-1-ol; Glycol ether.  
 Michigan critical material: Toluene; xylenes.  
 Massachusetts RTK: Toluene, xylenes, trimethyl benzene (isomers), Aliphatic ketone; Propyl alcohol, Butan-2-ol; 2-methylpropan-1-ol, Glycol ether.  
 Massachusetts spill list: Glycol ether.  
 New Jersey: Toluene; Xylenes; Aliphatic Ketone; Butan-2-ol; 2-methylpropan-1-ol; Glycol ether.  
 New Jersey spill list – Toluene; xylenes; Trimethyl benzene (isomers); Aliphatic ketone; Propyl alcohol; Butan-2-ol, 2-Methylpropan-1-ol.  
 Louisiana spill reporting: propyl alcohol; Glycol ether

California prop 65: This product contains the following ingredients for which the State Of California has found to cause cancer, birth defects or other reproductive harm, which could require a warning under the statue: Toluene.  
 California prop 65 (no significant risk level): Toluene: 7mg/day (value), 13mg/day (inhalation).  
 California prop 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statue: Toluene

**EU regulations**

**Hazardous symbol(s)**

**Classification**

Highly flammable

**Risk phrases**

R11 – Highly flammable  
 R20 – Harmful by inhalation  
 R41 – Risk of serious damage to eyes  
 R66 – Repeated exposure may cause skin dryness or cracking

**Safety phrases**

S9 – Keep container I well ventilated place.  
 S16 – Keep container away from sources of ignition – No smoking.  
 S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 S39 – Wear eye/face protection  
 S60 – This material and its container must be disposed of as hazardous waste.

**ENIECS Number**

200-746-9 (Propyl alcohol), 200-662-2 ( Acetone), 203-625-9 (toluene), 215-535-7 (xylene),  
 203-905-0 (Ethylene glycol momobutyl ether), 201-255-1 (Ethyl methyl benzene),  
 201-158-5(butan-2-ol)

## 16. OTHER INFORMATION

### National Fire Protection Association (U.S.A.)

#### References

- Manufacturers Material Safety Data sheet.BDH; Hazard Data disks, Version 3
- RTECHS: National Institute for Occupational Safety and Health, Issue: 97-3 (August 1997).
- CESARS: Chemical Evaluation and Retrieval System, Produced by: Ontario Ministry of Environment and Michigan Department of Natural Resources, Issue: 97-3 (August, 1997).
- CHEMINFO: Canadian Centre for Occupational Health and Safety, Issue: 97-3 (August 1997). – BDH; Hazard Data Disk, Version 3. – CESARS: Chemical Evaluation and Retrieval System, Produced by: Ontario Ministry of Environment and Michigan Department of Natural Resources, Issue 97-3 (August 1997).
- TOMES Plus System: Toxicology, Occupational Medicine & Environmental Series: incorporating: - MEDITEX, HAZARDTEXT, 1<sup>st</sup> Medical Response Protocols, INFOTEXT, HSDB, CHRIS, OHM/TAD, IRIS, NIOSH Pocket Guide, RTECS, NJ Facts Sheets, North American Emergency Response Guides, REPROTEXT, REPROTOX, TERIS, Shepard's Catalog of Teraogenic Agents.
- LOLI Database: The regulated List of Lists.

#### References

This data is offered in good faith as typical values and are not as a product specification. No warranty, whether expressed or implied is made. The recommended handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific content of the intended use.

C	=	Ceiling limit	NEGL	=	Negligible
EST	=	Estimated	NF	=	None found
NA	=	Not applicable	UNKN	=	Unknown
NE	=	None established	REC	=	Recommended
ND	=	None determined	V	=	Recommended by vendor
TS	=	Trade secret	SKN	=	Skin
R	=	Recommended	MST	=	Mist

## END OF MSDS

**DISCLAIMER:** All information is given in good faith, but without guarantee in respect of accuracy and no responsibility is accepted for errors or omissions or the consequences thereof. For the current version of this MSDS please download from the Dura Paints website at [www.durapaints.co.za](http://www.durapaints.co.za).