

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 01/08/2021 Supersedes: 02/02/2015 Version: 4.0

SECTION 1: Identification	
1.1. Identification	
Product form Substance name	: Substance : Tetrapropenylsuccinic Anhydride (K-12)
CAS-No. Synonyms Other means of identification	: 26544-38-7 : TPSA; Dihydro-3-(tetrapropenyl)-2,5-furandione, DDSA (Dodecenyl Succinic Anhydride) : EC 247-781-6
1.2. Recommended use and restriction	is on use
Use of the substance/mixture	: Intermediate Formulation into mixture Lubricants and additives Adhesives, binding agents Epoxy resins component
1.3. Supplier	
<b>Supplier</b> Aurorium 201 North Illinois Street, Suite 1800 Indianapolis, IN, 46204 USA T +1-317-247-8141 SDS@aurorium.com - www.aurorium.com	
<b>UK REACH Only Representative</b> Aurorium UK Ltd St Ann's Wharf,	EU REACH Only Representative Aurorium Belgium NV Havenlaan 86C - bus 204, 1000 Brussels

Aurorium UK Ltd St Ann's Wharf, Newcastle Upon Tyne, NE1 3DX REACHUK@aurorium.com

### 1.4. Emergency telephone number

Emergency number

: Aurorium: +1-800-344-3426 CHEMTREC (USA): +1-800-424-9300 CHEMTREC (International):+1-703-527-3887

Belgium

REĂCH@aurorium.com

## SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

### **GHS US classification**

Serious eye damage/eye irritation, Category 2 Skin sensitisation, category 1A Hazardous to the aquatic environment — Chronic Hazard, Category 4

Full text of H statements : see section 16

- H319 Causes serious eye irritation.
- H317 May cause an allergic skin reaction.
- H413 May cause long lasting harmful effects to aquatic life.

Page 1

2.2. GHS Label elements, including pr	recautionary statements
GHS US labelling	
Hazard pictograms (GHS US)	
Signal word (GHS US)	: Warning
Hazard statements (GHS US)	<ul> <li>H317 - May cause an allergic skin reaction.</li> <li>H319 - Causes serious eye irritation.</li> <li>H413 - May cause long lasting harmful effects to aquatic life.</li> </ul>
Precautionary statements (GHS US)	<ul> <li>P261 - Avoid breathing vapours.</li> <li>P264 - Wash hands, forearms and face thoroughly after handling.</li> <li>P272 - Contaminated work clothing must not be allowed out of the workplace.</li> <li>P273 - Avoid release to the environment.</li> <li>P280 - Wear protective gloves/protective clothing/eye protection/face protection.</li> </ul>
01/08/2021	EN (English)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

	P302+P352 - If on skin: P333+P313 - If skin irrit P305+P351+P338 - IF I contact lenses, if preser P337+P313 - If eye irrita P363 - Wash contamina P501 - Dispose of conte accordance with local, re	ation or rash occurs: G N EYES: Rinse caution at and easy to do. Con ation persists: Get med ated clothing before reu ents/container to hazar	et medical advice/ usly with water for tinue rinsing. lical advice/attentic use. dous or special wa	several minutes. Remove m. ste collection point, in
2.3. Other hazards which do not result i	n classification			
No additional information available				
2.4. Unknown acute toxicity (GHS US)				
Not applicable				
SECTION 3: Composition/informatic	on on ingredients			
3.1. Substances				
Substance type	: UVCB			
Name		Product identifier	%	GHS US classification
Tetrapropenylsuccinic Anhydride (K-12)		(CAS-No.) 26544-38-7	≈ 100	Eye Irrit. 2, H319 Skin Sens. 1A, H317 Aquatic Chronic 4, H413
Full text of hazard classes and H-statements : se	ee section 16			
3.2. Mixtures				
lot applicable				
SECTION 4: First-aid measures				
.1. Description of first aid measures				
First-aid measures after inhalation	: Remove person to fresh symptoms: Get immedia	•	-	f experiencing respiratory
First-aid measures after skin contact	: Wash immediately with advice/attention.	plenty of water. If skin	irritation or rash oc	curs: Get medical
First-aid measures after eye contact	immediate medical advi	ce/attention.	-	the eyelids wide open. Get
First-aid measures after ingestion	: Rinse mouth out with wa CENTER/doctor.	ater. Do not induce vor	niting. Immediately	r call a POISON
.2. Most important symptoms and effe	cts (acute and delayed)			
Symptoms/effects	· Courses serieus ave irrit		lergic skin reaction	
Symptoms/enects			-	. May be harmful if swallowed.
Chronic symptoms	: No chronic health hazar		-	. May be harmful if swallowed.
Chronic symptoms	: No chronic health hazar	ds are likely for this ma	-	. May be harmful if swallowed.
Chronic symptoms 4.3. Immediate medical attention and sp	: No chronic health hazar	ds are likely for this ma	-	. May be harmful if swallowed.
Chronic symptoms .3. Immediate medical attention and sp reat symptomatically.	: No chronic health hazar	ds are likely for this ma	-	. May be harmful if swallowed.
Chronic symptoms	No chronic health hazar	ds are likely for this ma	-	. May be harmful if swallowed.
Chronic symptoms .3. Immediate medical attention and sp Treat symptomatically. SECTION 5: Fire-fighting measures	No chronic health hazar	rds are likely for this ma	aterial.	. May be harmful if swallowed.
Chronic symptoms I.3. Immediate medical attention and sp Treat symptomatically. SECTION 5: Fire-fighting measures 5.1. Suitable (and unsuitable) extinguisl	No chronic health hazar	rds are likely for this ma y rbon dioxide (CO2). Dr	aterial. y chemical.	. May be harmful if swallowed.
Chronic symptoms	<ul> <li>No chronic health hazar</li> <li>becial treatment, if necessary</li> <li>hing media         <ul> <li>Water spray. Foam. Car</li> <li>Do not use a water jet s</li> </ul> </li> </ul>	rds are likely for this ma y rbon dioxide (CO2). Dr	aterial. y chemical.	. May be harmful if swallowed.
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Chronic symptoms	: No chronic health hazar ecial treatment, if necessary hing media : Water spray. Foam. Car : Do not use a water jet s hemical	rds are likely for this ma y rbon dioxide (CO2). Dr ince it may cause the f	aterial. y chemical.	. May be harmful if swallowed.
Chronic symptoms 4.3. Immediate medical attention and sp Treat symptomatically. SECTION 5: Fire-fighting measures 5.1. Suitable (and unsuitable) extinguish Suitable extinguishing media Unsuitable extinguishing media 5.2. Specific hazards arising from the cl Fire hazard	<ul> <li>No chronic health hazar</li> <li>becial treatment, if necessary</li> <li>hing media         <ul> <li>Water spray. Foam. Car</li> <li>Do not use a water jet s</li> <li>hemical</li> <li>Not flammable.</li> </ul> </li> </ul>	rds are likely for this ma y rbon dioxide (CO2). Dr ince it may cause the f	aterial. y chemical.	. May be harmful if swallowed.
Chronic symptoms 4.3. Immediate medical attention and sp Treat symptomatically. SECTION 5: Fire-fighting measures 5.1. Suitable (and unsuitable) extinguish Suitable extinguishing media Unsuitable extinguishing media 5.2. Specific hazards arising from the cl Fire hazard Explosion hazard Hazardous decomposition products in case of	<ul> <li>No chronic health hazar</li> <li>becial treatment, if necessary</li> <li>hing media         <ul> <li>Water spray. Foam. Car</li> <li>Do not use a water jet s</li> <li>hemical             <ul> <li>Not flammable.</li> <li>Product is not explosive</li> <li>Carbon dioxide. Carbon</li> </ul> </li> </ul> </li> </ul>	rds are likely for this ma y rbon dioxide (CO2). Dr ince it may cause the f	aterial. y chemical.	. May be harmful if swallowed.
Chronic symptoms <b>4.3.</b> Immediate medical attention and sp Treat symptomatically. <b>SECTION 5: Fire-fighting measures</b> <b>5.1.</b> Suitable (and unsuitable) extinguish Suitable extinguishing media Unsuitable extinguishing media <b>5.2.</b> Specific hazards arising from the cl Fire hazard Explosion hazard Hazardous decomposition products in case of fire	<ul> <li>No chronic health hazar</li> <li>becial treatment, if necessary</li> <li>hing media         <ul> <li>Water spray. Foam. Car</li> <li>Do not use a water jet s</li> <li>hemical             <ul> <li>Not flammable.</li> <li>Product is not explosive</li> <li>Carbon dioxide. Carbon</li> </ul> </li> </ul> </li> </ul>	rbon dioxide (CO2). Dr ince it may cause the f	aterial. y chemical. ire to spread.	n. May be harmful if swallowed.

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

5		
SECT	ION 6: Accidental release meas	sures
6.1.	Personal precautions, protective eq	ipment and emergency procedures
Gener	al measures	: Ventilate spillage area. Mark out the contaminated area with signs and prevent access to unauthorized personnel.
6.1.1.	For non-emergency personnel	
Emerg	ency procedures	: Do not get in eyes, on skin, or on clothing. Avoid breathing dust/fume/gas/mist/vapours/spray. Evacuate unnecessary personnel.
6.1.2.	For emergency responders	
Emerg	ency procedures	: Do not attempt to take action without suitable protective equipment.
6.2.	Environmental precautions	
Do not a	allow product to spread into the environm	ent. Prevent entry to sewers and public waters.
6.3.	Methods and material for containme	nt and cleaning up
For co	ntainment	<ul> <li>Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.</li> </ul>
Metho	ds for cleaning up	: Absorb spilled material with sand or earth. Shovel into suitable and closed container for disposal. Wash contaminated area with large amounts of water.
6.4.	Reference to other sections	
For furth	ner information refer to section 8: "Exposi-	re controls/personal protection". For waste disposal after cleaning, see section 13.
SECT	ION 7: Handling and storage	
7.1.	Precautions for safe handling	
Preca	itions for safe handling	· Wear personal protective equipment. Avoid any direct contact with the product

Frecautions for sale handling	. Wear personal protective equipment. Avoid any direct contact with the product.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse.
7.2. Conditions for safe storage, inc	luding any incompatibilities
Storage conditions	: Store in a dry place. Store in a closed container. Store in a well-ventilated place.
Incompatible products	: Strong acids. Strong bases. Strong oxidizers.
Incompatible materials	: None known.

S	SECTION 8: Exposure controls/personal protection		
8.	1. Control parameters		
	Tetrapropenylsuccinic Anhydride (K-12) (26544-38-7)		
	Not applicable		

## 8.2. Appropriate engineering controls

Appropriate engineering controls

: Provide local exhaust or general room ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

## 8.3. Individual protection measures/Personal protective equipment

## Hand protection:

Chemical resistant gloves (according to European standard EN 374 or equivalent). Neoprene protective gloves. Nitrile rubber gloves. Protective gloves made of PVC

## Eye protection:

Chemical goggles or face shield

## Skin and body protection:

Long sleeved protective clothing. Chemical resistant safety shoes

## **Respiratory protection:**

In case of inadequate ventilation wear respiratory protection.

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 9: Physical and chemical properties		
9.1. Information on basic physical and chemical properties		
Physical state	: Liquid	
Appearance	: Pale yellow liquid.	
Colour	: Pale yellow	
Odour	: Slight	
Odour threshold	: No data available	
рН	: Not applicable	
Melting point	: <-20 °C	
Freezing point	: <-20 °C	
Boiling point	: Decomposes before boiling	
Flash point	: 177 °C (closed cup)	
Relative evaporation rate (butylacetate=1)	: 0.02 – 0.1	
Flammability (solid, gas)	: No data available	
Vapour pressure	: 76.5 hPa (20°C)	
Relative vapour density at 20 °C	: 9.2	
Relative density	: No data available	
Density	: 1.002 g/cm <sup>3</sup> (20°C)	
Molecular mass	: 266.37 g/mol	
Solubility	: Water: 10 - 20 mg/l @ 25 °C Acetone: Soluble	
Partition coefficient n-octanol/water (Log Pow)	: ≥4.39	
Auto-ignition temperature	: 310 – 313	
Decomposition temperature	: 260 °C	
Viscosity, kinematic	: 429.142 mm²/s	
Viscosity, dynamic	: 430 mPa·s (20°C)	
Explosive limits	: Not applicable	
Explosive properties	: Product is not explosive.	
Oxidising properties	: No.	
9.2. Other information		

No additional information available

SECTI	ON 10: Stability and reactivity			
10.1.	Reactivity			
No dang	erous reactions known.			
10.2.	Chemical stability			
The prod	uct is stable at normal handling and stora	ge conditions.		
10.3.	Possibility of hazardous reactions			
Stable ur	nder normal conditions of use.			
10.4.	Conditions to avoid			
Overhea	ting. Open flame.			
10.5.	Incompatible materials			
Strong a	Strong acids. Strong bases. Strong oxidizers.			
10.6.	Hazardous decomposition products			
Carbon o	lioxide. Carbon monoxide.			
SECTI	ON 11: Toxicological informatio	n		
11.1.	Information on toxicological effects			
Acute to	oxicity (oral)	: Based on available data, the classification criteria are not met		
Acute to	oxicity (dermal)	: Based on available data, the classification criteria are not met		
Acute to	oxicity (inhalation)	: Based on available data, the classification criteria are not met		

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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Tetrapropenylsuccinic Anhydride (K-12) (265	44-38-7)
LD50 oral rat	2900 mg/kg (OECD 423 method)
LD50 dermal rabbit	6200 – 7500 mg/kg (LD 100)
LC50 Inhalation - Rat	> 5.3 mg/l/4h Chemical category
Skin corrosion/irritation	: Based on available data, the classification criteria are not met
	pH: Not applicable
Serious eye damage/irritation	: Causes serious eye irritation.
	pH: Not applicable
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met
Carcinogenicity	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Based on available data, the classification criteria are not met
Tetrapropenylsuccinic Anhydride (K-12) (265	
NOAEL (animal/male, F0/P)	50 mg/kg bodyweight (Read-across)
NOAEL (animal/female, F0/P)	50 mg/kg bodyweight (Read-across)
NOAEL (animal/male, F1)	250 mg/kg bodyweight (Read-across)
NOAEL (animal/female, F1)	250 mg/kg bodyweight (Read-across)
STOT-single exposure	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Based on available data, the classification criteria are not met
Tetrapropenylsuccinic Anhydride (K-12) (265-	44-38-7)
NOAEL (subacute, oral, animal/male, 28 days)	50 mg/kg bodyweight (Chemical category)
Aspiration hazard	: Based on available data, the classification criteria are not met
Symptoms/effects	: Causes serious eye irritation. May cause an allergic skin reaction. May be harmful if swallowed
Chronic symptoms	: No chronic health hazards are likely for this material.
SECTION 12: Ecological information	la de la companya de
12.1. Toxicity	
Tetrapropenylsuccinic Anhydride (K-12) (265	44-38-7)

Tetrapropenyisuccinic Annyunde (K-12) (20344-36-7)	
LC50 fish 1	8.32 mg/l OECD 203 (96h)
EC50 Daphnia 1	> 100 mg/l OECD 202 (48h)
ErC50 (algae)	110 mg/l (72 hours)
NOEC (chronic)	3.33 mg/l (fish)

12.2.	Persistence and degradability	
Tetr	apropenylsuccinic Anhydride (K-12) (2654	4-38-7)
Pers	sistence and degradability	Not readily biodegradable.
BOD	D (% of ThOD)	9.9 % ThOD (28 days) OECD 301D
12.3.	Bioaccumulative potential	

Tetrapropenylsuccinic Anhydride (K-12) (26544-38-7)	
Partition coefficient n-octanol/water (Log Kow)	≥ 4.39
Bioaccumulative potential	Bioaccumulation is not expected to occur.
40.4 Mahiliku in apil	

## 12.4. Mobility in soil

Tetrapropenylsuccinic Anhydride (K-12) (26544-38-7)	
Partition coefficient n-octanol/water (Log Koc)	2.916
Ecology - soil	Low mobility (soil).

## 12.5. Other adverse effects

No additional information available

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

# SECTION 13: Disposal considerations

Waste treatment methods	: Dispose in a safe manner in accordance with local/national regulations.
Sewage disposal recommendations	: Do not dispose of waste into sewer.
Product/Packaging disposal recommendations	: hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

## **SECTION 14: Transport information**

**Department of Transportation (DOT)** 

In accordance with DOT

Not applicable

## Transport by sea

Not applicable

### Air transport

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

Tetrapropenylsuccinic Anhydride (K-12) (26544-38-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

## 15.2. International regulations

### **CANADA**

## Tetrapropenylsuccinic Anhydride (K-12) (26544-38-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

#### **EU-Regulations**

Tetrapropenylsuccinic Anhydride (K-12) (26544-38-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

### **National regulations**

## Tetrapropenylsuccinic Anhydride (K-12) (26544-38-7)

Listed on the AICS (Australian Inventory of Chemical Substances)

- Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
- Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
- Listed on the Japanese ISHL (Industrial Safety and Health Law)
- Listed on KECL/KECI (Korean Existing Chemicals Inventory)
- Listed on NZIoC (New Zealand Inventory of Chemicals)
- Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
- Listed on the TCSI (Taiwan Chemical Substance Inventory)

#### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

## **SECTION 16: Other information**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date

: 01/08/2021

#### Full text of H-statements:

H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H413	May cause long lasting harmful effects to aquatic life.

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

NFPA health hazard	: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
NFPA fire hazard	: 1 - Materials that must be preheated before ignition can occur.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and not reactive with water.
Hazard Rating	
Health	: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability	<ul> <li>1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)</li> </ul>
Physical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Indication of changes:

All chapters have been modified since the previous version (new software).

SDS US (GHS HazCom 2012)

Important Note: Please note that the information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. The information contained herein may change without prior notice. THIS SAFETY DATA SHEET SUPERSEDES ALL PREVIOUS EDITIONS.