



# Material Safety Data Sheet

## Description of Goods VEOVA 10

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

#### Product information

Trade name : VEOVA™ 10  
 Product code : K3112  
 Product Type : Vinyl ester.  
 Uses and restrictions : Use only as a chemical intermediate.

### 2. HAZARDS IDENTIFICATION

Classification : Dangerous for the environment.

#### Risk advice to man and the environment

Human health hazards : No specific hazards.  
 Slightly irritating to the skin.  
 Safety hazards : Combustible.  
 Environmental hazards : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product Group : Koch acid derivative.  
 Synonyms : Vinyl ester of neodecanoic acid  
 Vinyl ester of mixed trialkyl acetic acids  
 Vinyl ester of saturated tertiary C10 carboxylic acids

#### Hazardous components

Chemical Name	CAS-No. /	Symbol(s)	R-phrase(s)	Weight %
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	EINECS-No.			
NEODECANOIC ACID VINYL ESTER	51000-52-3	N	R50/53	100
	256-905-8			

For the full text of the R phrases mentioned in this Section, see Section 16.

#### 4. FIRST AID MEASURES

- General advice : Get medical attention immediately if symptoms occur.
- Eye contact : Flush eye with water.  
If persistent irritation occurs, obtain medical attention.
- Skin contact : Wash skin with water using soap if available.
- Inhalation : Remove to fresh air.
- Ingestion : Do not induce vomiting.  
Give nothing by mouth.  
If rapid recovery does not occur, obtain medical attention.
- Notes to physician**
- Symptoms : Skin contact may cause irritation
- Treatment : Dermatitis may result from prolonged or repeated exposure.

#### 5. FIRE-FIGHTING MEASURES

- Unsuitable extinguishing media : Water in a jet.
- Suitable extinguishing media : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
- Specific hazards during fire fighting : Carbon monoxide may be evolved if incomplete combustion occurs.  
Not classified as flammable but will burn.  
Keep adjacent containers cool by spraying with water.
- Special protective equipment for fire-fighters : Full protective clothing and self-contained breathing apparatus.

Environmental precautions	: Prevent contamination of soil and water. Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers.
Clean-up methods - small spillage	: Absorb or contain liquid with sand, earth or spill control material. Shovel up and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum. Scrub contaminated surfaces with detergent solution Flush contaminated area with plenty of water.
Clean-up methods - large spillage	: Transfer to a labelled, sealable container for product recovery or safe disposal. Treat residues as for small spillage.

## 7. HANDLING AND STORAGE

### Handling

Advice on safe handling	: Observe all relevant local regulations.  Avoid prolonged or repeated contact with skin Do not breathe spray, mists Avoid handling above 97 °C, otherwise the product may form flammable/explosive vapour-air mixtures.
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### Storage

Requirements for storage areas and containers	: Store in accordance with local regulations.  No special storage requirements.
Storage temperature	: Ambient.
Recommended materials	: For containers or container linings, use stainless steel For container paints, use amine epoxy

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters	Regulation / Update	Exposure time	Value	Remarks
NEODECANOIC ACID VINYL ESTER	ACGIH			None established.

### Engineering measures

Use only in well-ventilated areas.

### Personal protective equipment

Respiratory protection	: No specific measures.
Hand protection	: Material of gloves for long term application (BTT>480min): Butyl rubber

Ethyl Vinyl Alcohol Laminate (EVAL)  
Nitrile rubber  
Neoprene rubber  
Polyvinyl Chloride (PVC)  
gauntlet type

Material of gloves for short term/splash application  
(10min<BTT<480min):  
Butyl rubber  
Ethyl Vinyl Alcohol Laminate (EVAL)  
Nitrile rubber  
Neoprene rubber  
Polyvinyl Chloride (PVC)  
gauntlet type

Use gloves approved to relevant standards e.g. EN 374  
(Europe), ASTM F739 (US).  
Suitability and durability of a glove is dependent on usage, e.g.  
frequency and duration of contact, chemical resistance of glove  
material and dexterity. Always seek advice from glove suppliers.

Eye protection	:	Monogoggles
Skin and body protection	:	Safety shoes or boots - chemical resistant Standard issue work clothes
Protective measures	:	Wear PVC gloves, gauntlet type, PVC one-piece suit with integral hood, safety boots - rubber, knee length, If risk of inhalation of aerosols/mists/spray wear full face-piece respirator with organic vapour cartridge and built-in particulate filter NPF 20 (gas only), In a confined space, wear self-contained breathing apparatus open circuit type NPF 2000  Environmental exposure controls, Observe all relevant local regulations.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form	:	Liquid
Colour	:	Colourless
Odour	:	Esters

### Safety data

Melting / freezing point	:	< -20 °C
Boiling point	:	212 °C
Flash point	:	81 °C (PMCC)
Autoignition temperature	:	267 - 279 °C

Vapour pressure	: 38,60 hPa at 25 °C
Density	: Typical 879 kg/m <sup>3</sup> at 20 °C
Partition coefficient: n-octanol/water	: log Pow: 4,9 Shake-flask
Solubility in water	: 5.9 mg/L at 20 °C
Viscosity, kinematic	: 2,2 mm <sup>2</sup> /s at 20 °C
Molecular weight (weight average - M <sub>w</sub> )	: 198.31
Relative vapour density	: 6,8

#### 10. STABILITY AND REACTIVITY

Conditions to avoid	: Heat, flames and sparks.
Hazardous decomposition products	: Hazardous decomposition products are not expected to form during normal storage.
Hazardous reactions	: Stable under normal use conditions.

#### 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: Low toxicity, LD <sub>50</sub> > 2000 mg/kg.
Acute inhalation toxicity	: Low toxicity, LC <sub>50</sub> > 5 mg/l.
Acute dermal toxicity	: Low toxicity, LD <sub>50</sub> > 2000 mg/kg.
Eye irritation	: Not irritating.
Skin irritation	: Expected to be slightly irritant.
Sensitisation	: Not a skin sensitiser.
Repeated dose toxicity	: Repeated exposure does not cause significant toxic effects.
Mutagenicity	: Not mutagenic.
Human effects	: Prolonged or repeated exposure may give rise to dermatitis.
Basis for assessment	: Information given is based on product data.

#### 12. ECOLOGICAL INFORMATION

**Elimination information (persistence and degradability)**

Biodegradability	:	Not inherently biodegradable.
Bioaccumulation	:	Not expected to bioaccumulate significantly.
<b>Ecotoxicity effects</b>		
Toxicity to fish	:	Very toxic, LC/EC/IC 50 <= 1 mg/l .
Toxicity to algae	:	Toxic, 1 < LC/EC/IC 50 <= 10 mg/l .
Acute toxicity - invertebrates	:	Very toxic, LC/EC/IC 50 <= 1 mg/l .
Mobility	:	Floats on water.  Partly evaporates from water and soil surfaces, but a significant proportion will remain after one day. Adsorbs to soil and is not mobile.
Sewage treatment	:	Expected to be practically non toxic, LC/EC/IC 50 > 100 mg/l.
Basis for assessment	:	Information given is based on product data and on data on the components and the toxicology of similar products.

### 13. DISPOSAL CONSIDERATIONS

Product disposal	:	Recover or recycle if possible. Otherwise: Incineration.
Container disposal:	:	Drain container thoroughly. Send to drum recoverer or metal reclaimer. Residues may cause an explosion hazard if heated above 97 °C. Do not puncture, cut or weld uncleaned drums.
Local legislation	:	The recommendations given are considered appropriate for safe disposal. However, local regulations may be more stringent and these must be complied with.

### 14. TRANSPORT INFORMATION

▪ <i>ADR:</i>	
UN-Number:	3082
Class:	9
Classification code:	M6
Packaging group:	III
Labelling No.:	9
Risk No.:	90
Proper shipping name contains	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. NEODECANOIC ACID VINYL ESTER
▪ <i>RID:</i>	
UN-Number:	3082
Class:	9

Classification code: M6  
 Packaging group: III  
 Labelling No.: 9  
 Risk No.: 90  
 Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
 contains: NEODECANOIC ACID VINYL ESTER

▪ *ICAO / IATA cargo aircraft only:*

UN-Number: 3082  
 Class: 9  
 Packaging group: III  
 Labelling No.: 9  
 Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
 contains: NEODECANOIC ACID VINYL ESTER

▪ *IMDG:*

UN-Number: 3082  
 Class: 9  
 Packaging group: III  
 Labelling No.: 9  
 Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
 contains: NEODECANOIC ACID VINYL ESTER  
 Marine pollutant: Yes. Marine Pollutant mark required.

**15. REGULATORY INFORMATION**

Labelling according to EC Directives : NEODECANOIC ACID VINYL ESTER

Classification : Dangerous for the environment.

Symbol(s)



N - Dangerous for the environment

R-phrase(s) : R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s) : S57 Use appropriate container to avoid environmental contamination.  
 S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

**Notification status**

AICS	:	y
DSL	:	y
INV (CN)	:	y
ENCS (JP)	:	y
TSCA	:	y
EINECS	:	y
KECI (KR)	:	y
PICCS (PH)	:	y

**16. OTHER INFORMATION****Further information**

Text of R phrases mentioned in Section 3:

R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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Reference	: This safety datasheet complies with the requirements of Regulation (EC) No 1907/2006.
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