

SAFETY DATA SHEET

Revision Date 16-Nov-2010 Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Description: Vanadyl(IV) acetylacetonate

Cat No. 199590000; 199590500; 199592500

Synonyms None Known.

Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Laboratory chemicals
Uses advised against No Information available

Details of the supplier of the safety data sheet

Company

Acros Organics BVBA

Janssen Pharmaceuticalaan 3a

2440 Geel, Belgium

E-mail address begel.sdsdesk@thermofisher.com

Emergency Telephone Number

For information in the US, call: 800-ACROS-01 For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99 Emergency Number, US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300 CHEMTREC Phone Number, Europe: 703-527-3887

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

| Acute oral toxicity | Category 4 |
|---|-------------|
| Acute dermal toxicity | Category 4 |
| Acute Inhalation Toxicity - Dusts and Mists | Category 4 |
| Skin Corrosion / irritation | Category 2 |
| Serious Eye Damage/Eye Irritation | Category 2A |
| Specific target organ systemic toxicity (single exposure) | Category 3 |

Classification according to EU Directives 67/548/EEC or 1999/45/EC

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

Symbol(s) Xn - Harmful R -phrase(s) none

Risk Combination Phrases R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed

R36/37/38 - Irritating to eyes, respiratory system and skin

2. HAZARDS IDENTIFICATION

Label Elements



Signal Word

Warning

Hazard Statements

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H302 - Harmful if swallowed

H315 - Causes skin irritation

H332 - Harmful if inhaled

H312 - Harmful in contact with skin

Precautionary Statements - EU (§28, 1272/2008)

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P301+ P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Other Hazards

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | EC No. | Weight % | CAS-No | Classification | GHSCLAS | REACH Reg. No. |
|-----------------------------------|--------|----------|--------|----------------|---------------|----------------|
| Vanadium, oxobis(2,4- | | 99 | | , | STOT SE 3 | - |
| pentanedionato-O,O')-, (SP-5-21)- | 590-8 | | | Xi; R36/37/38 | (H335) | |
| 3153-26-2 | | | | | Skin Irrit. 2 | |
| | | | | | (H315) | |
| | | | | | Eye Irrit. 2 | |
| | | | | | (H319) | |
| | | | | | Acute Tox. 4 | |
| | | | | | (H302) | |
| | | | | | Acute Tox. 4 | |
| | | | | | (H312) | |
| | | | | | Acute Tox. 4 | |
| | | | | | (H332) | |
| | | | | | , , | |

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

4. FIRST AID MEASURES

Description of first aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes Obtain

medical attention

Skin ContactWash off immediately with soap and plenty of water removing all contaminated clothes and

shoes Obtain medical attention

Ingestion Clean mouth with water Get medical attention

Inhalation Remove from exposure, lie down Move to fresh air If breathing is difficult, give oxygen If not

breathing, give artificial respiration Obtain medical attention

Notes to Physician Treat symptomatically

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Water spray Carbon dioxide (CO₂) Dry chemical chemical foam

Extinguishing media which must not be used for safety reasons

No information available.

Special hazards arising from the substance or mixture

Combustible material Flammable

Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Environmental precautions

Prevent further leakage or spillage if safe to do so

Methods and material for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal Do not let this chemical enter the environment

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with skin and eyes Do not breathe dust Do not breathe vapors or spray mist Do not ingest

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place Keep container tightly closed Keep away from heat and sources of ignition Keep under nitrogen

Specific End Uses

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure limits This product, as supplied, does not contain any hazardous materials with occupational

exposure limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL)
Predicted No Effect Concentration

No information available. No information available.

(PNEC)

Exposure controls

Engineering Measures Ensure adequate ventilation, especially in confined areas Ensure that eyewash stations and

safety showers are close to the workstation location

Personal protective equipment

Eye Protection Goggles Protective gloves

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory ProtectionFollow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits

are exceeded or if irritation or other symptoms are experienced

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical StatePowder, SolidAppearanceBlue greenodorodorless

pHNo information available.Boiling Point/RangeNo information available.Melting Point/Range256 - 259°C / 492.8 - 498.2°F

Flash Point 79°C / 174.2°F
Water Solubility negligible
Molecular Formula C10 H14 O5 V
Molecular Weight 265.15

10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability

Air sensitive.

Possibility of Hazardous Reactions

Hazardous Polymerization No information available.
Hazardous Reactions . No information available.

Conditions to Avoid

Exposure to air, Incompatible products.

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

Carbon monoxide (CO). Carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

Product Information No acute toxicity information is available for this product

Component Information

Chronic Toxicity

There are no known carcinogenic chemicals in this product Carcinogenicity

No information available. Sensitization **Mutagenic Effects** No information available **Reproductive Effects** No information available. **Developmental Effects** No information available. **Target Organs** No information available.

Other Adverse Effects The toxicological properties have not been fully investigated.

Endocrine Disruptor Information None known

12. ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity effects Do not empty into drains

Persistence and degradability

No information available

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Results of PBT and vPvB assessment

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from Residues / Unused

Dispose of in accordance with local regulations

Products

Contaminated Packaging Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

IMDG/IMO

UN-No 3285

14. TRANSPORT INFORMATION

Hazard Class 6.1
Packing Group

Proper Shipping Name VANADIUM COMPOUND, N.O.S.

ADR

UN-No 3285 Hazard Class 6.1 Packing Group III

Proper Shipping Name VANADIUM COMPOUND, N.O.S.

IATA

UN-No 3285 Hazard Class 6.1 Packing Group III

Proper Shipping Name VANADIUM COMPOUND, N.O.S.

15. REGULATORY INFORMATION

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

International Inventories

| Component | EINECS | ELINCS | NLP | TSCA | DSL | NDSL | PICCS | ENCS | CHINA | AICS | KECL |
|---------------------------------|-----------|--------|-----|------|-----|------|-------|------|-------|------|------|
| Vanadium, oxobis(2,4- | 221-590-8 | - | | X | - | X | Х | Х | Х | X | - |
| pentanedionato-O.O') (SP-5-21)- | | | | | | | | | | | |

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory Lists

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

CHINA - China Inventory of Existing Chemical Substances

AICS - Inventory of Chemical Substances

KECL - Existing and Evaluated Chemical Substances

Chemical Safety Assessment

16. OTHER INFORMATION

Text of R phrases mentioned in Section 2-3

R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed

R36/37/38 - Irritating to eyes, respiratory system and skin

Revision Date 16-Nov-2010 Revision Summary Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

16. OTHER INFORMATION

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text

End of Safety Data Sheet