

**Compalox® AN/V-801 N 1.0; Compalox® AN/V-802 N 1.0; Compalox® AN/V-813 N 0.5; Compalox® AN/V-813 N 0.6; Compalox® AN/V-813 N 1.0**

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006
COMMISSION REGULATION (EU) No. 2015/830

Issue Date: 17/Oct/2016
Print Date: 18/Dec/2016

Revision Number: 1.2
Page 1 of 12

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product Name: Compalox® AN/V-801 N 1.0; Compalox® AN/V-802 N 1.0; Compalox® AN/V-813 N 0.5; Compalox® AN/V-813 N 0.6; Compalox® AN/V-813 N 1.0

Chemical Name Aluminum Oxide

Pure substance/mixture Substance

Chemical Name	CAS Number	EC No	REACH registration number	(CLP) Regulation (EC 1272/2008)	TSCA: United States	Weight-%
Aluminum oxide	1344-28-1	215-691-6	01-2119529248-35-xxxx	Not classified	X	>99

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

Recommended Use Chemical industry (raw material for the production of other aluminium compounds), etc. Absorbent, purification of process liquids and gases, etc.

Industrial use --

Professional use --

Consumer use --

1.3. Details of the supplier of the safety data sheet

Company: MARTINSWERK GmbH
Kölner Strasse 110
50127 Bergheim
Germany
Tel. : +49-2271-90.22.78
Fax. : +49-2271-90.27.17

Internet www.hubermaterials.com

E-mail hubermaterials@huber.com

1.4. Emergency telephone number CHEMTREC: +1 800 424 9300 or International +1 703 527 3887

Poison control center phone number National Anti-Poison Center UK: +44 844 892 0111 (National Poisons Information Service)

SECTION 2: Hazards identification

Issue Date: 17/Oct/2016

Print Date: 18/Dec/2016

Revision Number: 1.2

Page 2 of 12

2.1. Classification of the substance or mixture

(CLP) Regulation (EC 1272/2008) Not classified

Hazards identification**Physical Hazard** Not classified**Health Hazards** Not classified**Environmental Hazard** Not classified**Specific Hazards Arising from the Chemical** See Section 11 for more information.**2.2. Label elements****Symbols/Pictograms** None**Signal Word** None**Hazard Statements**

This product is not classified as hazardous according to the UN GHS guideline and labeling is not required

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Precautionary Statements**Prevention** Employ good industrial hygiene practice
Wash hands thoroughly after handling**Response** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
IF ON SKIN: Wash with plenty of soap and water
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
If swallowed, rinse mouth with water (only if the person is conscious)
Drink plenty of water**Storage** Keep in a dry place
Store away from incompatible materials**Disposal** Disposal should be in accordance with applicable regional, national and local laws and regulations.**2.3. Other hazards** No information available.**SECTION 3: Composition/information on ingredients****3.1. Substances**

Substance

Chemical Name	CAS Number	EC No	REACH registration number	(CLP) Regulation (EC 1272/2008)	Annex	TSCA: United States	Weight-%
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Issue Date: 17/Oct/2016

Print Date: 18/Dec/2016

Revision Number: 1.2

Page 3 of 12

35-xxxx

SECTION 4: First aid measures

4.1. Description of first aid measures

General Advice

When in doubt or if symptoms are observed, get medical advice. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Eye Contact

In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Skin Contact

Wash with plenty of soap and water.

Inhalation

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Ingestion

Rinse mouth thoroughly with water.

Aspiration hazard

Not an expected route of exposure.

Notes to Physician

Treat symptomatically.

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

Dust contact with the eyes can lead to mechanical irritation. Contact with dust can cause mechanical irritation or drying of the skin.

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

Treatment should be symptomatic and supportive.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media

Water spray (fog). Foam. Dry chemical. Carbon dioxide (CO₂).

Unsuitable Extinguishing Media

None known.

5.2. Special hazards arising from the substance or mixture

None known.

5.3. Advice for firefighters

Special protective equipment for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

Fire-fighting measures

In case of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

Issue Date: 17/Oct/2016

Print Date: 18/Dec/2016

Revision Number: 1.2

Page 4 of 12

- 6.1. Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation. Use personal protection recommended in Section 8. Avoid dust formation. Keep unauthorized personnel away.
- For non-emergency personnel** Keep unauthorized personnel away.
- For emergency responders** Keep unauthorized personnel away. Use personal protection recommended in Section 8.
- 6.2. Environmental precautions** Avoid runoff to waterways and sewers.
- 6.3. Methods and material for containment and cleaning up** Methods for Containment : Prevent further leakage or spillage if safe to do so
Methods for Clean-up : Sweep up and shovel into suitable containers for disposal
- 6.4. Reference to other sections** Section 8: Exposure controls and personal protection. See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling** Minimize dust generation and accumulation
Provide local exhaust ventilation
Handle in accordance with good industrial hygiene and safety practice
- 7.2. Conditions for safe storage, including any incompatibilities** Store away from incompatible materials
Keep container tightly closed and dry
- 7.3. Specific end use(s)** No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Aluminum oxide

ACGIH	TWA: 10 mg/m ³
OSHA	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction
NIOSH	Not established
Austria	TWA: 5 mg/m ³ alveolar dust, respirable fraction, smoke
Austria	STEL: 10 mg/m ³ alveolar dust, respirable fraction, smoke
Belgium	TWA: 1 mg/m ³
Bulgaria	TWA: 1.5MGM3;Respirable fraction. 10.0MGM3;Dust.
Croatia	TWA: 10 mg/m ³ total dust 4 mg/m ³ respirable dust
Czech Republic	TWA: 10.0 mg/m ³ dust
Denmark	TWA: 5 mg/m ³ total 2 mg/m ³ respirable
Estonia	TWA: 10 mg/m ³ total dust 4 mg/m ³ respirable dust
Finland	TWA: 2 mg/m ³ Al
France	VME/VLE: 10MGM3

Issue Date: 17/Oct/2016

Print Date: 18/Dec/2016

Revision Number: 1.2

Page 5 of 12

Greece	TWA: 10 mg/m ³ inhalable fraction 5 mg/m ³ respirable fraction
Hungary	TWA: 6 mg/m ³ respirable dust
Ireland	TWA: 10 mg/m ³ total inhalable dust 4 mg/m ³ respirable dust
Ireland	30 mg/m ³ total inhalable dust 12 mg/m ³ respirable dust
Italy	TWA: 1MGM3;Respirable.
Netherlands	MAC TWA: 10 mg/m ³
Norway	TWA: 10 mg/m ³
Norway	STEL: 10 mg/m ³
Poland	TWA: 2.5 mg/m ³ inhalable fraction 1.2 mg/m ³ respirable fraction
Portugal	TWA: 10 mg/m ³ particulate matter containing no Asbestos and <1% Crystalline silica
Romania	TWA: 2 mg/m ³ aerosol 3 mg/m ³ 1 mg/m ³
Romania	STEL: 5 mg/m ³ aerosol 10 mg/m ³ dust 3 mg/m ³ fume
Slovakia	TWA: 1.5 mg/m ³ fume 1.5 mg/m ³ 0.1 mg/m ³ respirable fraction 6 mg/m ³ total aerosol
Spain	TWA: 10 mg/m ³
Sweden	TWA: 5 mg/m ³ total dust 2 mg/m ³ respirable dust
Switzerland	TWA: 3 mg/m ³ respirable dust, smoke
Switzerland	STEL: 24 mg/m ³ respirable dust, smoke
United Kingdom	TWA: 10 mg/m ³ inhalable dust 4 mg/m ³ respirable dust

Biological Limit Values: None

Recommended monitoring procedures Refer also to national guidance documents for information on currently recommended monitoring procedures

DNEL/DMEL and PNEC values DNEL/DMEL and PNEC values

Aluminum oxide

Worker - inhalative, long-term - systemic	3 mg/m ³
Consumer - oral, long-term - systemic	6.22 mg/kg bw/d

Predicted No Effect Concentration (PNEC)**Aluminum oxide**

Sewage treatment plant	20 mg/l
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8.2. Exposure controls**Engineering Measures**

Do not handle until all safety precautions have been read and understood
Ensure adequate ventilation, especially in confined areas
Provide a good standard of controlled ventilation (10 to 15 air changes per hour)
Use exhaust ventilation to keep airborne concentrations below exposure limits
In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment

Issue Date: 17/Oct/2016

Print Date: 18/Dec/2016

Revision Number: 1.2

Page 6 of 12

Eye/Face Protection	Wear safety glasses with side shields (or goggles).
Skin and Body Protection	Wear suitable protective clothing.
Hand protection	For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn. Wear suitable gloves tested to EN 374.
Respiratory Protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Recommended filter type: (FFP2) (FFP3)
Thermal hazards	None known.
Hygiene Measures	Follow general hygiene considerations recognized as common good workplace practices The worker should wash daily at the end of each work shift, and prior to eating, drinking, smoking, etc
Environmental Exposure Controls	Dispose of in accordance with local regulations

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:

Physical State	Solid Powder
Color	White
Odor	Odorless
Odor Threshold	No information available
pH:	Not available
Melting point / Freezing point	2000° C (3632° F) (1013 hPa)
Initial boiling point and boiling range	2980° C (5396 °F) (1013 hPa)
Flash Point:	Not applicable. Product/Substance is inorganic. Solid.
Evaporation Rate	Not applicable. Melting Point : > 300°C
Flammability (solid, gas)	No information available
Upper flammability limit:	
Lower flammability limit:	
Vapor Pressure	1 hPa (2158 °C)
Vapor Density	Not applicable Melting Point : > 300°C
Relative Density	.85
Water Solubility	Insoluble
Solubility in other solvents	No information available
Partition coefficient	Not applicable inorganic
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Kinematic viscosity	Not applicable Solid
Dynamic viscosity	Not applicable Solid
Explosive Properties	None

Issue Date: 17/Oct/2016

Print Date: 18/Dec/2016

Revision Number: 1.2

Page 7 of 12

Oxidizing Properties None

9.2. Other information No data available

SECTION 10: Stability and reactivity

10.1. Reactivity No data available

10.2. Chemical stability Stable under normal conditions

10.3. Possibility of hazardous reactions None under normal processing

10.4. Conditions to avoid Incompatible materials
Decomposes at 200 °C
:
Aluminum Oxide
Water

10.5. Incompatible materials Strong acids

10.6. Hazardous decomposition products None known

SECTION 11: Toxicological information

General Information Users are advised to consider national Occupational Exposure Limits or other equivalent values.

Information on Likely Routes of Exposure

Inhalation Do not breathe dust

Skin Avoid prolonged or repeated contact with skin
Contact with dust can cause mechanical irritation or drying of the skin

Eyes Avoid contact with eyes
Dust contact with the eyes can lead to mechanical irritation

Ingestion Ingestion is not a likely route of exposure

Aspiration hazard Not an expected route of exposure.

11.1. Information on toxicological effects

Aluminum oxide

Oral LD50 > 2000 mg/kg Rat
Inhalation LC50 > 2.3 mg/l 4-hr Aerosol : Rat

Acute Toxicity Aluminum Oxide
Repeated dose toxicity Inhalation 28-d Rat NOAEL (No observed adverse effect level) 70 mg(Al)/m³ . Target Organs Lungs Respiratory system
Repeated dose toxicity Year Oral Rat NOAEL (No observed adverse effect level)

Issue Date: 17/Oct/2016
 Print Date: 18/Dec/2016

Revision Number: 1.2
 Page 8 of 12

	>=30 mg Al/kg bw
Serious eye damage/eye irritation	Non-irritant : Rabbit
Skin Corrosion/Irritation	Non-irritant : Rabbit
Mutagenicity	Based on available data, the classification criteria are not met
Reproductive Effects	This product does not contain any known or suspected reproductive hazards.
Reproductive toxicity:	Based on available data, the classification criteria are not met.
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
Target Organ Effects	Lungs.
Specific target organ toxicity - Single exposure	No information available.
Specific target organ toxicity - Repeated exposure	No information available.

SECTION 12: Ecological information

12.1. Ecotoxicity	Very low solubility. Not considered to be harmful to aquatic life.
<u>Aluminum oxide</u> WGK Classification (VwVwS) 0	
12.2. Persistence and degradability	The methods for determining biodegradability are not applicable to inorganic substances.
12.3. Bioaccumulative potential	Not likely to bioaccumulate.
Partition coefficient	Not available
Bioconcentration factor (BCF)	No data available.
12.4. Mobility in soil	None.
12.5. Results of PBT and vPvB assessment	This substance does not meet the criteria for classification as PBT or vPvB.
12.6. Other adverse effects	None known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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Safety Data Sheet

Compalox® AN/V-801 N 1.0; Compalox® AN/V-802 N 1.0; Compalox® AN/V-813 N 0.5; Compalox® AN/V-813 N 0.6; Compalox® AN/V-813 N 1.0

Issue Date: 17/Oct/2016

Revision Number: 1.2

Print Date: 18/Dec/2016

Page 9 of 12

- Disposal Methods** Disposal should be in accordance with applicable regional, national and local laws and regulations.
- Contaminated Packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not reuse container.
- Waste codes** Waste codes should be assigned by the user based on the application for which the product was used

Aluminum oxide

WGK Classification (VwVwS) 0

SECTION 14: Transport information

Mode of Transportation (Road, Water, Air, Rail)

- IATA** Not regulated
IMDG/IMO Not regulated
ICAO Not regulated

- 14.1. UN number None
- 14.2. UN proper shipping name None
- 14.3. Transport hazard class(es) None
- 14.4. Packing group None
- 14.5. Environmental hazards No
- 14.6. Special precautions for user Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
 Not applicable

SECTION 15: Regulatory information

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

Global Inventories

Pure substance/mixture Substance

Chemical Name	CAS Number	EC No	REACH registration number	Australia (AICS)	Canada (DSL)	China (IECSC)	Japan	South Korea (KECL)	Mexico	New Zealand	Philippines (PICCS)	Taiwan	TSCA: United States
Aluminum oxide	1344-28-1	215-691-6	01-211952 9248-35-x xxx	X	X	X	X	X	X	X	X	X	X

Legend X / Y: Complies , - / N: Not Listed , Exempt

HUBER

Safety Data Sheet

Compalox® AN/V-801 N 1.0; Compalox® AN/V-802 N 1.0; Compalox® AN/V-813 N 0.5; Compalox® AN/V-813 N 0.6; Compalox® AN/V-813 N 1.0

Issue Date: 17/Oct/2016

Print Date: 18/Dec/2016

Revision Number: 1.2

Page 10 of 12

15.2. Chemical safety assessment A Chemical Safety Assessment has been carried out for this substance

Exposure scenario

Not classified

SECTION 16: Other information

Reason for Revision	This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 & COMMISSION REGULATION (EU) No. 2015/830
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Prepared by	Huber Engineered Materials Global Regulatory Affairs email: regulatory.affairs@huber.com.

(CLP) Regulation (EC 1272/2008) Not classified

Labeling

Symbols/Pictograms	None
Signal Word	None
Hazard Statements	This product is not classified as hazardous according to the UN GHS guideline and labeling is not required This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Abbreviations and acronyms

International Agency for Research on Cancer (IARC)
International Air Transport Association (IATA)
International Maritime Dangerous Goods (IMDG)
International Uniform Chemical Information Database (IUCLID)
Workplace Hazardous Materials Information System (WHMIS) status and classification
EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification
DOT (Department of Transportation)
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
TWA - Time-Weighted Average
The Classification, Labeling and Packaging of Substances and Mixtures (CLP) Regulation (EC 1272/2008)
PPE - Personal Protection Equipment
NIOSH - National Institute for Occupational Safety and Health
TDG (Transport of Dangerous Goods) Canada
CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)
Reportable Quantity (RQ) (RQ/% in mixture)
STEL - Short Term Exposure Limit
TLV® - Threshold Limit Value
Derived No Effect Level (DNEL)
SVHC: Substances of Very High Concern for Authorization:
Land transport (ADR/RID)
Biochemical oxygen demand (BOD)
Chemical oxygen demand (COD)
ICAO (air)
(IMDG) International Maritime Dangerous Goods
Positive Pressure Self-Contained Breathing Apparatus (SCBA)
Predicted No Effect Concentration (PNEC)
Globally Harmonized System (GHS)

Disclaimer The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

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Safety Data Sheet

Compalox® AN/V-801 N 1.0; Compalox® AN/V-802 N 1.0; Compalox® AN/V-813 N 0.5; Compalox® AN/V-813 N 0.6; Compalox® AN/V-813 N 1.0

Issue Date: 17/Oct/2016

Print Date: 18/Dec/2016

Revision Number: 1.2

Page 12 of 12