Safety Data Sheet
acc. to OSHA HCS

Printing date 04/30/2014 Reviewed on 03/11/2014

*
1 Identification

· **Product identifier**

· **Trade name: n-Octane 95%**

· **Article number:** 205070
· **CAS Number:**
111-65-9
· **Index number:**
601-009-00-8
· **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
· **Application of the substance / the mixture** Solvents

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Haltermann GmbH
Schlengendeich 17
D-21107 Hamburg, Germany
Tel.: +49-(0)40-33318-0
E-mail: Info-haltermann@h-c-s-group.com

· **Information department:** Product stewardship
· **Emergency telephone number:** TUIS: +49 (0)69-305 6418

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2 Hazard(s) identification

· **Classification of the substance or mixture**

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**


Harmful
Harmful: may cause lung damage if swallowed.


Irritant
Irritating to skin.


Highly flammable
Highly flammable.


Dangerous for the environment
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Vapours may cause drowsiness and dizziness.
· **Information concerning particular hazards for human and environment:** Has a narcotizing effect.

· **Label elements**

· **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with directives on hazardous materials.

· **Code letter and hazard designation of product:**
Harmful
Highly flammable
Dangerous for the environment

· **Risk phrases:**
Highly flammable.
Irritating to skin.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
Harmful: may cause lung damage if swallowed.
Vapours may cause drowsiness and dizziness

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· **Safety phrases:**
Keep container in a well-ventilated place.
Keep away from sources of ignition - No smoking.
Do not empty into drains.
Take precautionary measures against static discharges.
This material and its container must be disposed of as hazardous waste.
Avoid release to the environment. Refer to special instructions/Safety data sheets
· **Classification system:**
· **NFPA ratings (scale 0 - 4)**



Health = 1
Fire = 3
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 1
Fire = 3
Reactivity = 0

· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Substances**
· **CAS No. Description**
111-65-9 octane
· **Identification number(s)**
· **Index number:** 601-009-00-8

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4 First-aid measures

· **Description of first aid measures**
· **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
· **After eye contact:** Rinse opened eye for several minutes under running water.
· **After swallowing:** Do not induce vomiting; immediately call for medical help.
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **Danger** Aspiration hazard
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:**
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **For safety reasons unsuitable extinguishing agents:** Water with full jet
· **Special hazards arising from the substance or mixture** No further relevant information available.

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· **Advice for firefighters**
· **Protective equipment:** No special measures required.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
· **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Prevent seepage into sewage system, workpits and cellars.
Inform respective authorities in case of seepage into water course or sewage system.
· **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **Precautions for safe handling**
Keep receptacles tightly sealed.
Store in cool, dry place in tightly closed receptacles.
· **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** Store in a cool location.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
· **Specific end use(s)** No further relevant information available.

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8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**	
111-65-9 octane	
PEL	Long-term value: 2350 mg/m³, 500 ppm n-Octane only
REL	Long-term value: 350 mg/m³, 75 ppm Ceiling limit value: 1800* mg/m³, 385* ppm *15 min
TLV	Long-term value: 1401 mg/m³, 300 ppm

· **Additional information:** The lists that were valid during the creation were used as basis.

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· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the skin.
Avoid contact with the eyes and skin.
· **Breathing equipment:**
Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.
Short term filter device:
· **Protection of hands:**
Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Nitrile rubber, NBR
· **Penetration time of glove material** 480 min (EN 374)
· **Eye protection:** Tightly sealed goggles

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9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Fluid
Color:	Colorless
· **Odor:**	Mild
· **Change in condition**	
Melting point/Melting range:	-57 °C (-71 °F)
Boiling point/Boiling range:	121-124 °C (250-255 °F)
· **Flash point:**	13 °C (55 °F)
· **Ignition temperature:**	210 °C (410 °F)
· **Danger of explosion:**	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· **Explosion limits:**	
Lower:	0.8 Vol %
Upper:	6.5 Vol %
· **Density at 15 °C (59 °F):**	0.705 g/cm3
· **Solubility in / Miscibility with**	
Water:	Not miscible or difficult to mix.
· **Other information**	No further relevant information available.

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10 Stability and reactivity

· **Reactivity**
· **Chemical stability**
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions** No dangerous reactions known.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:** No dangerous decomposition products known.

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11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
111-65-9 octane		
Oral	LD50	> 5000 mg/kg (rat) (OECD 401)
Dermal	LD50	> 2000 mg/kg (rabbit) (OECD 402)
Inhalative	LC50 /4 h	> 24.88 mg/L (rat) (OECD 403)

· **Primary irritant effect:**
· **on the skin:** Irritant to skin and mucous membranes.
· **on the eye:** No irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
Inhalation of concentrated vapors as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**
Substance is not listed.

· **NTP (National Toxicology Program)**
Substance is not listed.

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12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability** No further relevant information available.
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Ecotoxical effects:**
· **Remark:** Very toxic for fish
· **Additional ecological information:**
· **General notes:**
Water hazard class 2 (Assessment by list): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

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· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.

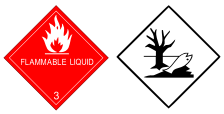
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14 Transport information

· **UN-Number**	
· **DOT, ADR, IMDG, IATA**	UN1262
· **UN proper shipping name**	
· **DOT**	Octanes
· **ADR**	1262 Octanes, ENVIRONMENTALLY HAZARDOUS
· **IMDG**	OCTANES, MARINE POLLUTANT
· **IATA**	OCTANES

· **Transport hazard class(es)**

· **DOT**



· **Class**	3 Flammable liquids.
· **Label**	3

· **ADR**



· **Class**	3 (F1) Flammable liquids
· **Label**	3

· **IMDG**



· **Class**	3 Flammable liquids.
· **Label**	3

· **IATA**



· **Class**	3 Flammable liquids.
· **Label**	3

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· **Packing group**	
· **DOT, ADR, IMDG, IATA**	II
· **Environmental hazards:**	
· **Marine pollutant:**	Yes
	Symbol (fish and tree)
· **Special marking (ADR):**	Symbol (fish and tree)
· **Special precautions for user**	Warning: Flammable liquids
· **Danger code (Kemler):**	33
· **EMS Number:**	F-E,S-E
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional information:**	
· **DOT**	
· **Remarks:**	Special marking with the symbol (fish and tree).

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15 Regulatory information

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

· **Section 355 (extremely hazardous substances):**
Substance is not listed.

· **Section 313 (Specific toxic chemical listings):**
Substance is not listed.

· **TSCA (Toxic Substances Control Act):**
Substance is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**
Substance is not listed.

· **Chemicals known to cause reproductive toxicity for females:**
Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:**
Substance is not listed.

· **Chemicals known to cause developmental toxicity:**
Substance is not listed.

· **Cancerogenity categories**

· **EPA (Environmental Protection Agency)**
Substance is not listed.

· **TLV (Threshold Limit Value established by ACGIH)**
Substance is not listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
Substance is not listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**
Substance is not listed.

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· **Product related hazard informations:**
The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**
Harmful
Highly flammable
Dangerous for the environment

· **Risk phrases:**
Highly flammable.
Irritating to skin.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
Harmful: may cause lung damage if swallowed.
Vapours may cause drowsiness and dizziness

· **Safety phrases:**
Keep container in a well-ventilated place.
Keep away from sources of ignition - No smoking.
Do not empty into drains.
Take precautionary measures against static discharges.
This material and its container must be disposed of as hazardous waste.
Avoid release to the environment. Refer to special instructions/Safety data sheets
· **Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· *** Data compared to the previous version altered.**