

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/29/2014

Reviewed on 01/30/2014

1 Identification

- **Product identifier**
- **Trade name:** Aniline, Reagent ACS Grade
- **Article number:** 145-81
- **CAS Number:**
62-53-3
- **EC number:**
200-539-3
- **Index number:**
612-008-00-7
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
OFI Testing Equipment Inc.
11302 Steeplecrest Dr.
Houston, TX 77065
(877) 837-8683
- **Information department:**
techservices@ofite.com
Product safety department
- **Emergency telephone number:**
INFOTRAC USA - CANADA: 1-800-535-5053
INTERNATIONAL: 1-352-323-3500



2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS06 Skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 3 H311 Toxic in contact with skin.

Acute Tox. 3 H331 Toxic if inhaled.



GHS08 Health hazard

Muta. 2 H341 Suspected of causing genetic defects.

Carc. 2 H351 Suspected of causing cancer.

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

H227 Combustible liquid.

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- **Label elements**

- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS05 GHS06 GHS08

- **Signal word** *Danger*

- **Hazard statements**

Combustible liquid.

Toxic if swallowed, in contact with skin or if inhaled.

Causes serious eye damage.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

Suspected of causing cancer.

Causes damage to organs through prolonged or repeated exposure.

- **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Do not breathe dust/fume/gas/mist/vapours/spray.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Remove/Take off immediately all contaminated clothing.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 2

Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = *2

Fire = 2

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**

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- **Identification number(s)**

- **EC number:** 200-539-3

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4 First-aid measures

· **Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· **After inhalation:**

Supply fresh air or oxygen; call for doctor.

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. Then consult a doctor.

· **After swallowing:** Do not induce vomiting; immediately call for medical help.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **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.

· **Special hazards arising from the substance or mixture** No further relevant information available.

· **Advice for firefighters**

· **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures** Not required.

· **Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· **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

· **Handling:**

· **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

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- *Open and handle receptacle with care.*
- **Information about protection against explosions and fires:** *Keep respiratory protective device available.*
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** *No special requirements.*
- **Information about storage in one common storage facility:** *Not required.*
- **Further information about storage conditions:** *Keep receptacle tightly sealed.*
- **Specific end use(s)** *No further relevant information available.*

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:**

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PEL	Long-term value: 19 mg/m ³ , 5 ppm and Homologues; Skin
REL	And Homologues; See Pocket Guide App. A
TLV	Long-term value: 7.6 mg/m ³ , 2 ppm Skin; BEI

- **Ingredients with biological limit values:**

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BEI	50 mg/L LD50 Intraperitoneal: urine Time: end of shift LD50: p-Aminophenol with hydrolysis (background, nonspecific, semi-quantitative)
-	LD50 Intraperitoneal: urine Time: end of shift LD50: Aniline with hydrolysis (nonquantitative)
-	LD50 Intraperitoneal: blood Time: end of shift LD50: Aniline released from hemoglobin (nonquantitative)

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

- **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.
Store protective clothing separately.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.*

- **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

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· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Liquid
Color:	Amber colored
Odor:	Unpleasant
Odour threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range:	-6 °C (21 °F)
Boiling point/Boiling range:	184 °C (363 °F)

· **Flash point:** 76 °C (169 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 530 °C (986 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Not determined.

· **Danger of explosion:** Not determined.

· **Explosion limits:**

Lower:	1.2 Vol %
Upper:	11 Vol %

· **Vapor pressure at 20 °C (68 °F):** 0.4 hPa

· **Density at 20 °C (68 °F):** 1.02 g/cm³ (8.512 lbs/gal)

· **Relative density** Not determined.

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- | | |
|---|--|
| · Vapour density | Not determined. |
| · Evaporation rate | Not determined. |
| · Solubility in / Miscibility with
Water at 20 °C (68 °F): | 34 g/l |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Other information | No further relevant information available. |

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.

11 Toxicological information

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

· **LD/LC50 values that are relevant for classification:**

Oral	LD50	250 mg/kg (rat)
Dermal	LD50	820 mg/kg (rabbit)
Inhalative	LC50/4 h	175 mg/l (mouse)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

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

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

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- **Ecotoxicological 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.
- **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.

14 Transport information

- | | |
|---|---|
| · UN-Number | |
| · DOT, IMDG, IATA | UN1547 |
| · UN proper shipping name | |
| · DOT | Aniline |
| · IMDG, IATA | ANILINE |
| · Transport hazard class(es) | |
| · DOT | |
|  | |
| · Class | 6.1 Toxic substances. |
| · Label | 6.1 |
| | |
| · IMDG, IATA | |
|  | |
| · Class | 6.1 Toxic substances. |
| · Label | 6.1 |
| · Packing group | |
| · DOT, IMDG, IATA | II |
| · Environmental hazards: | Environmentally hazardous substance, liquid |

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· Marine pollutant:	No
· Special precautions for user	Warning: Toxic substances
· Danger code (Kemler):	60
· EMS Number:	F-A,S-A
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	UN1547, Aniline, 6.1, II

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
- **Section 355 (extremely hazardous substances):** Substance is listed.
- **Section 313 (Specific toxic chemical listings):** Substance is listed.
- **TSCA (Toxic Substances Control Act):** Substance is listed.
- **Proposition 65**
- **Chemicals known to cause cancer:** Substance is 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.

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

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- **TLV (Threshold Limit Value established by ACGIH)**

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- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is listed.
- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is listed.
- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS05 GHS06 GHS08

- **Signal word** *Danger*
- **Hazard statements**
 - Combustible liquid.
 - Toxic if swallowed, in contact with skin or if inhaled.
 - Causes serious eye damage.
 - May cause an allergic skin reaction.
 - Suspected of causing genetic defects.
 - Suspected of causing cancer.
 - Causes damage to organs through prolonged or repeated exposure.
- **Precautionary statements**
 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 - Do not breathe dust/fume/gas/mist/vapours/spray.
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
 - Continue rinsing.

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- Remove/Take off immediately all contaminated clothing.
- Store locked up.
- Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Chemical safety assessment:** A Chemical Safety Assessment has not 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.

- **Department issuing MSDS:** Environment protection department.
- **Contact:** Mr. Nelson
- **Date of preparation / last revision**
Creation date for SDS 04-29-14 LS
04/29/2014 / -
- **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
: Flammable liquids, Hazard Category 4
Acute Tox. 3: Acute toxicity, Hazard Category 3
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Muta. 2: Germ cell mutagenicity, Hazard Category 2
Carc. 2: Carcinogenicity, Hazard Category 2
STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1

USA