Safety Data Sheet
acc. to OSHA HCS

Printing date 01/21/2014 Reviewed on 01/21/2014

*
1 Identification

· **Product identifier**
· Trade name: **Color Intensifier**

· Article number: 10887, 10888, 11855, 10886/10900
· Relevant identified uses of the substance or mixture and uses advised against: No further relevant information available.
· Application of the substance / the mixture: Protective impregnation

· **Details of the supplier of the safety data sheet**
· Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH
Lechstrasse 28
D 90451 Nürnberg
Tel. +49(0)911-642960
Fax. +49(0)911-644456
e-mail info@akemi.de

· Information department: Laboratory
· Emergency telephone number: Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH
Tel. +49(0)911-64296-59
Reachable during the following office hours:
Monday – Thursday from 07:30 a.m. to 16:30 p.m.
Friday from 07:30 a.m. to 13:30 p.m.

*
2 Hazard(s) identification

· **Classification of the substance or mixture**


GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapour.


GHS08 Health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.


GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.


GHS07

Skin Irrit. 2 H315 Causes skin irritation.

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


Harmful

Harmful: may cause lung damage if swallowed.


Irritant

Risk of serious damage to eyes.


Dangerous for the environment

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Flammable. Repeated exposure may cause skin dryness or cracking.

(Contd. on page 2)

Safety Data Sheet
acc. to OSHA HCS

Printing date 01/21/2014 Reviewed on 01/21/2014

Trade name: Color Intensifier

(Contd. of page 1)

· Information concerning particular hazards for human and environment:
Vapours of the product are heavier than air and may accumulate on the ground, in mines, drains or cellars with higher concentration.
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.
Has a narcotizing effect.

· Classification system:
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· **Label elements**

· GHS label elements
The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms

GHS02 GHS05 GHS08

· Signal word
Danger

· Hazard-determining components of labeling:
Polydimethylsiloxan, hydroxy-terminiert, Reaktionsprodukt mit Trimethoxymethylsilan und N-[3-(Trimethoxysilyl)propyl]-1,2-ethandiamin
Kohlenwasserstoffe, C4-, 1,3-Butadien-frei, polymerisiert, Triisobutylenfraktion, hydriert
Kohlenwasserstoffe,C10-C12, Isoalkane, <2% Aromaten

· Hazard statements
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H304 May be fatal if swallowed and enters airways.

· Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P261	Avoid breathing mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P304+P312	IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P405	Store locked up.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	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

(Contd. on page 3)

Safety Data Sheet
acc. to OSHA HCS

Printing date 01/21/2014 Reviewed on 01/21/2014

Trade name: Color Intensifier

(Contd. of page 2)

· HMIS-ratings (scale 0 - 4)

HEALTH	2
FIRE	2
REACTIVITY	0

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: Mixtures**
· Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 93685-81-5 EINECS: 297-629-8	Kohlenwasserstoffe, C4-, 1,3-Butadien-frei, polymerisiert, Triisobutylenfraktion, hydriert Xn R65 R10-53-66 Flam. Liq. 3, H226; Asp. Tox. 1, H304	25-50%
EC number: 923-037-2	Kohlenwasserstoffe,C10-C12, Isoalkane, <2% Aromaten Xn R65; N R51/53 R10-66 Flam. Liq. 3, H226; Asp. Tox. 1, H304	25-50%
CAS: 69430-37-1	Polydimethylsiloxan, hydroxy-terminiert, Reaktionsprodukt mit Trimethoxymethylsilan und N-[3-(Trimethoxysilyl)propyl]-1,2-ethandiamin Xi R38-41 Eye Dam. 1, H318; Skin Irrit. 2, H315	12.5-25%
CAS: 67-56-1 EINECS: 200-659-6 Index number: 603-001-00-X	methanol T R23/24/25-39/23/24/25; F R11 Flam. Liq. 2, H225; Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; STOT SE 1, H370	<1%

· Additional information: For the wording of the listed risk phrases refer to section 16.

* **4 First-aid measures**

· **Description of first aid measures**
· General information: Take affected persons out into the fresh air.
Position and transport stably on side.
Immediately remove any clothing soiled by the product.
· After inhalation: Supply fresh air; consult doctor in case of complaints.
· After skin contact: If skin irritation continues, consult a doctor.
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: If symptoms persist consult doctor.
· Information for doctor: Symptoms in intoxication with (aromatic) hydrocarbons (dosis letalis about 30 g)
a) In acute intoxication: headache, dizziness, euphoria, gastro-intestinal dysfunction, state of excitement, coma.
b) In chronic intoxication: myelotoxic damage, fatigue, dizziness, emaciation, cardiac palpitation after physical exercise, leucopenia, anemia, leukosis.
Therapy in hydrocarbons intoxication: In case of inhalation provision of fresh air; in case of peroral intake administration of Carbo medicinalis; only after intubation conduct of gastrolavage in application of Carbo medicinalis; in case of cramps administration of Diazepam 20 mg intravenously.
· Most important symptoms and effects, both acute and delayed: Breathing difficulty

(Contd. on page 4)

Safety Data Sheet
acc. to OSHA HCS

Printing date 01/21/2014 Reviewed on 01/21/2014

Trade name: Color Intensifier

(Contd. of page 3)

Headache
Dizziness
Dizziness
Nausea
Profuse sweating

· Danger — Danger of impaired breathing.
· Indication of any immediate medical attention and special treatment needed — If swallowed, gastric irrigation with added, activated carbon.

* **5 Fire-fighting measures**

· **Extinguishing media**
· Suitable extinguishing agents: — CO_2, 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** — Formation of toxic gases is possible during heating or in case of fire.
In case of fire, the following can be released:
Carbon monoxide (CO)
In certain fire conditions, traces of other toxic gases cannot be excluded.
· **Advice for firefighters**
· Protective equipment: — Do not inhale explosion gases or combustion gases.
Wear fully protective suit.
Wear self-contained respiratory protective device.
· **Additional information** — Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

* **6 Accidental release measures**

· **Personal precautions, protective equipment and emergency procedures** — Ensure adequate ventilation
Keep away from ignition sources
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.
· **Environmental precautions:** — Do not allow product to reach sewage system or any water course.
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 — Keep receptacles tightly sealed.
Store in cool, dry place in tightly closed receptacles.

(Contd. on page 5)

Safety Data Sheet
acc. to OSHA HCS

Printing date 01/21/2014 Reviewed on 01/21/2014

Trade name: Color Intensifier

(Contd. of page 4)

Keep away from heat and direct sunlight.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
Ensure good ventilation/exhaustion at the workplace.

· 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 only in the original receptacle.
Prevent any seepage into the ground.

· Information about storage in one common storage facility: Store away from oxidizing agents.
Store away from foodstuffs.

· Further information about storage conditions: Store receptacle in a well ventilated area.
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:

67-56-1 methanol

PEL	Long-term value: 260 mg/m³, 200 ppm
REL	Short-term value: 325 mg/m³, 250 ppm Long-term value: 260 mg/m³, 200 ppm Skin
TLV	Short-term value: 328 mg/m³, 250 ppm Long-term value: 262 mg/m³, 200 ppm Skin; BEI

· Ingredients with biological limit values:

67-56-1 methanol

BEI	15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)

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

· **Exposure controls**
· Personal protective equipment:
· General protective and hygienic measures: Do not eat, drink, smoke or sniff while working.
Apply solvent resistant skin cream before beginning work.
Use skin protection cream for skin protection.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes.

(Contd. on page 6)

Safety Data Sheet
acc. to OSHA HCS

Printing date 01/21/2014 Reviewed on 01/21/2014

Trade name: Color Intensifier

(Contd. of page 5)

· Breathing equipment: Filter AX
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.

· Protection of hands: Preventive skin protection by use of skin-protecting agents is recommended.
After use of gloves apply skin-cleaning agents and skin cosmetics.
Akemi skin protection agent recommendation for preventive skin shelter without use of protective gloves:
STOKODERM (http://www.stoko.com)
Akemi skin protection agent recommendation for preventive skin shelter in application and combination of protective gloves:
STOKO EMULSION (http://www.stoko.com)
Akemi skin protection recommendation for skin cleaning after product handling:
FRAPANTOL (http://www.stoko.com)
Akemi skin protection agent recommendation for skin aftercare:
STOKO VITAN (http://www.stoko.com)
The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived decree EN374, respectively, e.g. the above listed protection glove type. The mentioned permeation times´ data were generated and verified with material samples of the recommended protection glove type in the scope of laboratory anylyses of the company KCL GmbH in compliance with EN374.
This recommendation refers exclusively to the material safety data sheet referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with different substances or chemicals, and in condition of EN374 deviation the producer of CE-approved protection gloves must be contacted for detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: http://www.kcl.de).

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 Fluorocarbon rubber (Viton)
Nitrile rubber, NBR
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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material Value for the permeation: Level ≤ 6, 480 min
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· For the permanent contact gloves made of the following materials are suitable:
Fluorocarbon rubber (Viton)
Vitoject (KCL, Art No. 890)
Nitrile rubber, NBR
Camatril (KCL, Art No. 730, 731, 732, 733)

· As protection from splashes gloves made of the following materials are suitable:
Nitrile rubber, NBR
Camatril (KCL, 730, 731, 732, 733)

(Contd. on page 7)

Safety Data Sheet
acc. to OSHA HCS

Printing date 01/21/2014 Reviewed on 01/21/2014

Trade name: Color Intensifier

(Contd. of page 6)

· Not suitable are gloves made of the following materials: Natural rubber, NR
Leather gloves
Strong gloves

· Eye protection:  Tightly sealed goggles

· Body protection: Protective work clothing

* **9 Physical and chemical properties**

· **Information on basic physical and chemical properties**	
· General Information	
· Appearance:	
Form:	Fluid
Color:	Colorless
· Odor:	Characteristic
· pH-value:	Not applicable
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	180 °C (356 °F)
· Flash point:	> 40 °C (> 104 °F)
· Ignition temperature:	240 °C (464 °F)
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	0.6 Vol %
Upper:	7.0 Vol %
· Vapor pressure at 20 °C (68 °F):	1 hPa (1 mm Hg)
· Density at 20 °C (68 °F):	0.78 g/cm³ (6.509 lbs/gal)
· Specific gravity at 20 °C (68 °F):	0.78 g/cm³ (6.509 lbs/gal)
· Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
· Viscosity:	
Dynamic:	Not determined.
Kinematic at 20 °C (68 °F):	11 s (DIN 53211/4)
· Solvent content:	
Organic solvents:	80.4 %
Solids content:	4.8 %
· **Other information**	No further relevant information available.

* **10 Stability and reactivity**

· **Reactivity**
· Chemical stability
· Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.

(Contd. on page 8)

Safety Data Sheet
acc. to OSHA HCS

Printing date 01/21/2014 Reviewed on 01/21/2014

Trade name: Color Intensifier

(Contd. of page 7)

· **Possibility of hazardous reactions** Reacts with strong oxidizing agents.
Forms flammable gases / fumes.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

* **11 Toxicological information**

· **Information on toxicological effects**
· Acute toxicity:
· Primary irritant effect:
· on the skin: No irritant effect.
· on the eye: Strong irritant with the danger of severe eye injury.
· Sensitization: No sensitizing effects known.
· Additional toxicological information: The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)
None of the ingredients is listed.

· NTP (National Toxicology Program)
None of the ingredients is 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.
· **Additional ecological information:**
· General notes: Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Water hazard class 1 (Self-assessment): slightly hazardous for water
· **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: Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.
· Recommended cleansing agent: Alcohol

(Contd. on page 9)

Safety Data Sheet
acc. to OSHA HCS

Printing date 01/21/2014 Reviewed on 01/21/2014

Trade name: Color Intensifier

(Contd. of page 8)

acetone

* **14 Transport information**

· **UN-Number**
· DOT, ADR, IMDG, IATA: UN3295

· **UN proper shipping name**
· DOT: Hydrocarbons, liquid, n.o.s., mixture
· ADR: 3295 Hydrocarbons, liquid, n.o.s., mixture, ENVIRONMENTALLY HAZARDOUS
· IMDG: HYDROCARBONS, LIQUID, N.O.S., mixture, MARINE POLLUTANT
· IATA: HYDROCARBONS, LIQUID, N.O.S., mixture

· **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

· **Packing group**
· DOT, ADR, IMDG, IATA: III

· **Environmental hazards:**
· Marine pollutant: Symbol (fish and tree)
· Special marking (ADR): Symbol (fish and tree)

· **Special precautions for user**: Warning: Flammable liquids
· Danger code (Kemler): 30

(Contd. on page 10)

Safety Data Sheet
acc. to OSHA HCS

Printing date 01/21/2014 Reviewed on 01/21/2014

Trade name: Color Intensifier

(Contd. of page 9)

· EMS Number:	F-E,S-D
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **UN "Model Regulation":**	UN3295, Hydrocarbons, liquid, n.o.s., mixture, ENVIRONMENTALLY HAZARDOUS, 3, III

* **15 Regulatory information**

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

· Section 355 (extremely hazardous substances):
None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

67-56-1	methanol

· TSCA (Toxic Substances Control Act):

69430-37-1	Polydimethylsiloxan, hydroxy-terminiert, Reaktionsprodukt mit Trimethoxymethylsilan und N-[3-(Trimethoxysilyl)propyl]-1,2-ethandiamin
112-88-9	octadec-1-ene
64741-65-7	Naphtha (petroleum), heavy alkylate
67-56-1	methanol

· Proposition 65

· Chemicals known to cause cancer:
None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:
None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

67-56-1	methanol

· Cancerogenity categories

· EPA (Environmental Protection Agency)
None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)
None of the ingredients is listed.

· MAK (German Maximum Workplace Concentration)
None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)
None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)
None of the ingredients is listed.

· GHS label elements
The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms

GHS02 GHS05 GHS08

(Contd. on page 11)

Safety Data Sheet
acc. to OSHA HCS

Printing date 01/21/2014 Reviewed on 01/21/2014

Trade name: Color Intensifier

(Contd. of page 10)

· Signal word: Danger

· Hazard-determining components of labeling:
Polydimethylsiloxan, hydroxy-terminiert, Reaktionsprodukt mit Trimethoxymethylsilan und N-[3-(Trimethoxysilyl)propyl]-1,2-ethandiamin
Kohlenwasserstoffe, C4-, 1,3-Butadien-frei, polymerisiert, Triisobutylenfraktion, hydriert
Kohlenwasserstoffe,C10-C12, Isoalkane, <2% Aromaten

· Hazard statements
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H304 May be fatal if swallowed and enters airways.

· Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P261	Avoid breathing mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P304+P312	IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P405	Store locked up.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/ regional/national/international regulations.

· National regulations:

· Information about limitation of use: Employment restrictions concerning young persons must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.

· Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

· VOC USA 625.4 g/l / 5.22 lb/gl

· **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:** Laboratory
· **Contact:** Dieter Zimmermann
· Date of preparation / last revision 01/21/2014 / -
· Abbreviations and acronyms:
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organization
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

(Contd. on page 12)

Safety Data Sheet
acc. to OSHA HCS

Printing date 01/21/2014 Reviewed on 01/21/2014

Trade name: Color Intensifier

(Contd. of page 11)

ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)